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INSTINCT AND REASON



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INSTINCT AND REASON

AN ESSAY
CONCERNING THE RELATION OF INSTINCT TO
REASON, WITH SOME SPECIAL STUDY
OF THE NATURE OF RELIGION

BY

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PREFACE

THE writing of this book was first undertaken because I wished to present the conception of Religion, which will be found below. In attempting to make my argument convincing I have found it necessary to deal with questions which did not at first appear to relate to the subject I wished to discuss, and the study of Religion thus appears as a subsidiary part of the broader treatment of Instinct and Reason; the reader will readily perceive, however, that it still remains the most important and most interesting matter considered.

It has long¹ seemed to me evident that activities which are so universal in man as are those which express our religious life, cannot fail to be of significance in relation to our biological development, especially as these activities have persisted for so many ages in the human race. I have, therefore, attempted to outline a theory which will account for the existence of religious activities, and which will explain their biological import.

In order to present this clearly I have thought it best

¹ I find the views here presented in their main outlines in my notes under date of 1885.

to make a special study of Instinct, to which the second division of the book is devoted, to show the relation of religious activities to instinctive activities in general.

This study of Instinct naturally leads to the study of Impulse in division III., and this turns our thought to a consideration of the nature of moral standards which we all acknowledge to be most closely related to religious activities.

In like manner the study of Reason, while natural in connection with the study of Instinct, has also its appropriateness in connection with the consideration of the nature of Religion.

I have not attempted to enter fully into discussions concerning the genesis of religious customs and beliefs, a field which has perhaps been already sufficiently explored; I have touched upon such discussions only so far as has seemed to me necessary in order to bring into clear relief the facts relating to the function of religion in the development of man.

I at first intended to devote a separate division of the book to a study of the relation of religion to belief; but this I find unnecessary to the completeness of the argument, and I have therefore abandoned it for the present at least; those who read with care will perceive, I imagine, that if the doctrines here presented be accepted, such acceptance will in no way militate against the importance of the beliefs which are attached to religious expressions.

I have some hope that apart from their relation to religious problems the considerations concerning Instinct and Reason may not be without value to the psychologist.

A large proportion of the subjects considered are, however, of such general interest, and are by common agreement of such profound importance, that I have attempted to discuss them, so far as possible, without having recourse to the technicalities of psychology; such distinctly psychological discussions as are necessary to the argument I have therefore reserved for consideration in separate chapters, which the reader will easily recognise by their titles.

As science advances individual investigators become less and less important, and although I have made frequent references in foot-notes, I nevertheless feel that these are altogether inadequate as an acknowledgment of my indebtedness to those who have taught me. I take advantage of this opportunity to express my especial obligations to my friends Dr. C. L. Dana, D. M^cG. Means, Dr. Dickinson S. Miller, and Dr. Chas. H. Strong for valuable criticism of special parts of this work given from time to time as it has progressed; and to the Editors of *Mind* for allowing me to present certain parts of my argument in brief in the form of articles contributed to that Journal.

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PART I
INTRODUCTION

CHAPTER I

THE PROBLEM

§ 1. ALL serious thinkers will agree that a special and characteristic individuality has been given to the thought of the century now waning as the result of the forcible presentation of the doctrines of evolution through the labours of Darwin and his co-workers. No other problems of an intellectual nature have aroused so intense an interest in our generation as those brought into prominence in the course of the elaboration of developmental theories.

Indeed without being accused of self-complacency we may quite properly assert that if we compare the intellectual movement to which the discussion of these problems has led, with other powerful intellectual awakenings in the past, we are compelled to the conclusion that these doctrines, which we may justly claim to belong especially to our time, have shown a quite unique power. This has been due, I surmise, largely to the fact that the elementary data upon which modern forms of evolutionary theories are based, have been quickly brought within the comprehension of the ordinary thoughtful man: the problems, and the explanations of them, were stated by Darwin himself with so little of technicality, and with such avoidance of obscurity, that the man of general culture with an interest in science,

even though he were not a biological specialist, could not fail to grasp the trend of the argument, and could scarcely avoid being impressed by the importance of the main hypotheses presented for examination.

If the reader will note that much of the attention of evolutionary thinkers has been given to the study of, and to the interpretation of the meaning of, the instinctive activities which we find in ourselves, and which we discover to exist also in the animate creation around us, I think he will agree that the most important, as well as the most interesting, of the psychological problems of the day are those that relate to the nature of instinct, and that deal with the relation of instinctive activities to those activities which result from processes of reasoning; the former of which seem to be in a way forced upon us, the latter to be thoroughly personal, determined by the very nature of our own egohood.

When, at the close of the twentieth century, students shall again write the history of the development of philosophy, they may tell our descendants that metaphysics gained little from the thought of this nineteenth century which is just closing. They may say this, and probably with little danger of contradiction; but they will surely find it necessary to add to their statement the acknowledgment that the thinkers of this century, whatever were their metaphysical shortcomings, nevertheless did one great service for speculative thought, in that they left as an heritage to their successors a truer conception of the nature and of the importance of instinct than had been handed to them by their philosophic fathers, and in that they grasped more correctly than their predecessors had done the true relations that exist between instinctive and rational activities.

§ 2. Let us consider just for a moment how striking

and fundamental is the change that has appeared in the current of thought in this particular in these later times. What we call the modern philosophy of our western civilisation, from its very birth with the teaching Descartes, is seen leading her votaries to attempt to reach some consistent conception of the universe, and of ourselves existent in it, and conscious of it; at the same time it teaches them, as the scholastic philosophy had taught their fathers before them, to base their metaphysical structures upon purely rationalistic foundations, and to trust implicitly the results of ratiocinative process. There have indeed arisen from time to time certain philosophic protestants, in some instances men of great power like Berkeley, Locke, and Hume, who have drawn attention to the processes involved in the argument, and as a result have raised questions as to the validity of the argument adopted, and have cast doubt upon the conclusions reached. But with the spread of Kantian influence we find again renewed the attempt to construct a system which shall enable us to grasp the import of the universe as a whole, without hesitancy basing the structure upon a strictly rationalistic foundation. Kant's successors have followed his leading in this respect with a vigour and persistency at which we marvel.

The revolts that appear from time to time against the evils to which metaphysical excesses had led, the objections, for instance, of Hartley, of Priestley, of James Mill, were all themselves dependent upon assumptions of the supremacy of Reason as known in conscious reasoning process.

The contributions of Comte the apostle of Positivism, and those of John Stuart Mill, and of the lesser lights among his followers, were altogether rationalistic; and the weighty influence of these men gave rise to a semi-popular "positivism" of an aggressively arrogant type, confident in its reasoned results; a system which became current during

the lives of these thinkers, and which has not yet altogether disappeared, although we now see it rapidly losing its hold upon men.

Thus through all this movement of modern thought we perceive the influential predominance of rationalistic principle; a thorough-going trust in Reason. We, indeed, occasionally discern marks of rebellions against the supposed dicta of Reason, as these were understood; as an instance of such revolt we may mention the attempts to emphasise nature's leadings which are to be found in the works of Rousseau and his contemporaries. We note also the existence of a continuous and partially effective opposition to rationalism by the established Christian Church; an opposition which seemed exceedingly perverse to the Church's opponents at the time, which appears extremely reprehensible to the body of thinkers to-day, but which, I am convinced, will not seem nearly so ill-timed nor so disgraceful to those who look back from the standpoint which will be attained in the future, however much they may deplore, as we all must do, the form which this opposition took, and the methods employed to attain its ends.

§ 3. As we survey the movement of thought, however, although on the whole ultra-rationalistic influences appear prominent and effective, we are nevertheless able to discern signs of the working of another and diverse force. We now realise that during a long period, before this century had dawned, there had been developing among scientific and philosophic thinkers a deep conviction that a wider view of the philosophy of life might be taken than that which limited it by the bounds of human Reason as we know it; this conviction, indeed, had become so thoroughly grounded that the life and the work of a Darwin alone were needed to make the force of the view strikingly effective. The study

of nature had gradually saturated thought with the notion of a past of which philosophic rationalism told but little; a notion which seemed to crystallise instantly into forms of practical and vital importance upon the utterance of the master's word.

Consideration of the conceptions directly derived from the study of this notion call our attention to the fact that there are mighty voices within us that speak from the dim past to the more vivid and engrossing present; and the importance of this fact has in our day impressed thoughtful men in the most marked way; has had with us as notable an influence as the teaching of Positivism had a few decades ago.

The effect of this manner of thought is evident among scientists in the curbing of rationalistic confidence. Among our men of eminence in scientific research we find a distinct distrust of rationalistic dogma of all kinds, and beyond that a hesitant modesty in the presentation of hypotheses which is as characteristic of the best thinkers of our time as in the last century was personal confidence in the individual's reasoned results. This spirit indeed is spreading its influence amongst the masses of intelligent men of the race. The leaven thus placed in our midst is rapidly leavening the whole lump. Even with the theologians we find a waning of that confidence in individual ratiocinative deductions which has been so powerful since the seventeenth century, and which then led to such a multiplication of religious sects amongst all Protestant people.

This doctrine of the past as influencing the present makes itself felt to-day in every science. The astronomer concerns himself deeply with problems relating to the genesis of planetary and stellar systems; asks us to listen to discussions concerning details of the ever-fascinating nebular hypothesis. The geologist leads us to consider, as steps in

the development of the planet on which we live, epochs which the mind of man finds it difficult to picture; and teaches us that the geological formations surrounding us cannot be properly comprehended until we relate our own era to these æons of the dim past.

The chemist bids us imagine the conditions that may have existed in the past when molecular forces were distributed as they are not to-day: he searches for, and believes he has found, in the solid earth, the helium which the spectroscope tells him exists in gaseous form under high temperature in the sun; he makes this search because he imagines that if the molecular vibrations in the sun were to become the same as they are in the earth to-day, the gas would become part of the sun's solid groundwork; and arguing that in the past the conditions of the molecular vibrations in the earth may have been what they are now in the sun, he comes to believe that helium will be found in some solid constituent of the earth.

The biologist specially devotes his time to the consideration of past conditions and manners of growths; to him indeed are we indebted for the inspiration which has led to the formulation of that developmental doctrine which shows us the necessity of studying the life that has preceded ours in the dim ages of the past if we are to gain valuable conceptions of our life of the present, and of its trend and meaning. The sociologist obtains aid of a closely allied nature from conceptions which biology has given him; he gains the notion of a quasi-organic life of wider than individual scope, the genesis of which he traces by comparison with individual development; a form of life which he conceives to have been born of struggle and of adaptation to environmental conditions, extending through the ages of which historical record tells us nothing.

In psychology we see a most notable influence from

this doctrine that the past is working out its ends within us dwellers in the present. We see this in the emphasis of developmental psychological doctrines; in studies of childhood and of progressive growth; and, in general, in the use of the "genetic method" which is applied in every department of the science.

§ 4. It is apparent that in its very nature this influential trend of thought is likely to draw attention away from rationalistic dogma, and to reduce our confidence in the results of one's own personal reasoning. The development of the historical method, moreover, has emphasised so clearly the many failures of rationalistic theory in the days gone by, that thoughtful students have from this source also learned a lesson of extreme caution, and have become hesitant in the acceptance of any theories, even though they are stated in thoroughly approved rationalistic form.

This caution is observable through all lines of scientific effort. What in the old days would have been designated as laws are now not thus dignified, but are much more likely to be considered and discussed as mere working hypotheses. Our scientists are no longer confident and aggressive rationalistic positivists, but humbler learners from Nature's record of the past as that past speaks to them in the present. They are indeed dependent upon reasoned process as of old, but they have learned the danger of trusting implicitly to their own reasoned results, and they make their steps carefully, and are content to hold their conclusions tentatively.

§ 5. It must be clear to the reader, I think, that developmental and historical study, whilst it leads on the one hand to an emphasis of the failures of reasoning, enforces strongly on the other hand the importance of Nature's

teachings. As I have said above, this emphasis is especially notable and influential in the science of psychology and in those sciences directly connected with it, and it is from the standpoint of psychology that I shall discuss the subjects of our consideration in what follows. I shall endeavour to indicate the relations that exist between instinctive and reasoned action, and shall make an attempt to define the proper relative evaluation of each: for these relations and evaluations must be finally determined before we can make those wider generalisations that will enable us to place our thought in its true relation to the universe.

CHAPTER II

I.—THE METHOD

§ 1. IN the study that is to follow I shall attempt, so far as may be, to give prominence to objective considerations, referring to subjective experience to be sure but this in order to corroborate conceptions suggested by observations from without rather than to gain the basis of these conceptions.

In the study of reason, which is to a great extent appreciated by our inner experience while relatively few clear marks of its expression can be noted, this subordination of subjective to objective consideration is more difficult than in the study of instinct, which, on the contrary, is to a great extent distinguished by clear and definite expression while in many cases the subjective correspondents of the expressive activities produce little or no apparent influence upon the stream of consciousness. In the study of instinctive expression we indeed find it quite possible to look upon the facts to a great extent as thoroughly disinterested observers,—to take the standpoint which we may assume would be taken by some spirit endowed with powers of observation and intellectual consideration and yet altogether freed from bodily trammels; or, if the existence of such a creature be held to be inconceivable, we find it possible at least to take the same point of view in relation to all instinctive reactions which we must take in relation

to all those instincts in animals of which in the nature of the case we can have no experience, *e.g.* the flying of birds, the activities especially developed in the fishes inhabiting deep waters.

One result of the acceptance of this objective point of view has been the construction of the hypothesis of organic development generally known as the theory of evolution; of this hypothesis I shall make free use in what follows, adopting often what we have come to call the "genetic method." Concerning this hypothesis and this method I must at the start say a few words.

And first I wish to acknowledge that despite its value this genetic method is a dangerous one for the scientific worker to use carelessly; it should indeed always be employed with the utmost caution, for it leads us to deal with hypothetical conditions of life which existed long before man appeared on this planet, long before the days of which any but the most indirect record is available to us. Indeed the farther back we go in the history of life the less susceptible of proof are the hypotheses we are led to entertain.

I think on the whole, therefore, we must agree that from a scientific point of view the genetic argument, however suggestive it may be, must not be relied upon as final, that genetic hypotheses must not be entertained as decisive unless they be corroborated by positive evidence of strength; and further that in employing this method we must avoid the use of all but the best-established postulates of evolutionary doctrine if our argument is to retain any scientific flavour; though of course we may go further if we acknowledge that we can attribute to our work no more than speculative values.

Fortunately in the case of the studies we are to undertake we have to assume few postulates that are not simple and all but self-evident; and yet I wish to warn my reader

that so far as he thinks I deal with unverified hypotheses, so far must he accept my results as tentative only.

§ 2. I wish furthermore to acknowledge in the beginning my appreciation of the fact that the general doctrine of evolution is subject to some limitations, not usually noted, which distinctly narrow its value from a philosophic point of view.

We are wont, for instance, to speak glibly of "progress" as part and parcel of evolutionary doctrine as though we appreciated clearly the import of the term we use, as though progress were a perfectly definite objective fact which could be readily recognised and identified. But this of course is not true, for progress is a conception of ours determined by desires and impulses which, as we all realise, vary from race to race, from individual to individual, and from year to year in the same individual.

Progress for any person means the recognition by him of the development of a series of events in an order conformable to his ideals: the notion of progress differs, therefore, first with the series of events under consideration, and secondly with the varying and variable ideals of the person who is considering them. Progress as defined by Mr. Herbert Spencer, for instance, is a biological conception to which he attempts to give a universal application, and it is determined for him by his own individual ideals of the fullest life; it is clearly not the only available conception even for the biologist, and it does not apply beyond the biologist's field.

Moral progress, again, is quite a different thing, it is a concept determined by the development of the world in accord with our developing ethical standards, and this notion of progress must evidently change in correspondence with the alterations of our ethical standards which appear

as our mental life unfolds. Even if morality prove to be explicable in terms of evolutionary theory, the ideals of biological and of moral progress must ever appear to our minds as distinct and separate conceptions.

So far, then, as we define evolutionary doctrine in terms of progress, even where we do not deal in mere tautologies, we are evidently not expressing the facts in terms which are necessarily of the highest value. If, for instance, I am able to show, as I shall attempt to do, that religious activities can be stated in terms of our notion of biological progress, if they seem to have some special biological function which appears to be of sufficient importance to account for their persistence in the race; nevertheless it must be noted in the first place that this claim does not preclude the existence in connection with these activities of other functions of biological significance which may be pointed out by writers more familiar than I am with biological lore; but especially must it be noted that it does not in any way involve the suggestion that, in gaining a conception of the biological functioning of religious expression, we have sounded to its depths the significance of religion itself to the souls of men existent in this universe which we so imperfectly comprehend.

It will not do for us to rest satisfied even if we express all of life in terms of evolutionary doctrine, for we must remember that as under this doctrine our minds are themselves assumed to be products of development, the expression of experience in terms of that doctrine is from a broad point of view little more than a "coming to oneself" so to speak. Indeed there is in experience much of universal significance which is not even touched by evolutionary doctrine: for instance the whole question of origins.¹

¹ The reader will find some very acute criticism of this attitude from the logician's point of view in an article by Mr. B. I. Gilman in the *Philosophical Review*, vol. vi. 4. pp. 403 ff.

Darwinism in fact, if properly understood, waives this whole problem of origins, and contents itself with an attempt to state a law of wide validity which is of the greatest service to the biologist in enabling him to grasp the phenomena of nature in which he is interested. The broader evolutionary doctrine is similarly limited in scope, although a large proportion of evolutionary writers speak to us as though all the problems of the universe would lie clear before us so soon as we could state them in terms of this notion of biological progress.

The evolutionary hypothesis, moreover, is in general lacking in proof from well-verified data: it is supported principally by the broad reach of the fragmentary evidence we gain from many sides in favour of the general view. But when we come to study any special phenomena of life, especially when it is of a highly complex type, we find the evidence altogether inadequate; and we should be very careful to avoid too great assurance of our position, based as it is upon the complex facts before us. Especially is this true of those phenomena with which we deal when we study religious functioning; and yet I think we must acknowledge that in the interest of science it will be quite worth the trouble taken if we are able to show that from this point of view the phenomena of religion may be brought under categories which by other observations we are led to believe have a wide scope in the orderly arrangement of experience.

§ 3. In the course of the consideration to follow we shall find it advantageous to study the principal instincts not only as they appear in an objective view, but also as they affect consciousness; and in this connection I wish to ask the reader to make especial note of the somewhat striking fact that when we make the change from the

objective to the subjective point of view, we discover that we materially narrow our field of study: for while on the one hand we may from an objective standpoint consider the actions of all animals from the very lowest to the very highest, and may make certain generalisations from these actions as we observe them; yet it is perfectly clear on the other hand that our view from the subjective standpoint is very much restricted, inasmuch as our knowledge of the psychic coincidents of these actions of the animals is of necessity extremely limited.

In the study of the instincts as developed in man we are able, to be sure, to compare our own mental experiences with those of our fellows so far as they are capable of describing to us their conscious states; but we cannot fail to realise that even here the capacity for such description is limited to a relatively small number of our kind, and that our interpretation of such description is always likely to be warped by our own peculiar traits of thought and character. We must acknowledge, moreover, that although we are able thus to gain some inklings concerning the conscious life of our fellow-man, this aids us but little in the study of the psychic side of instinct in general; rather does the fact serve to emphasise the immensity of the mass of those activities in the animal world, which we are able to study objectively with some thoroughness, but which we are utterly unable to interpret in psychic terms, for the simple reason that animals are entirely incapable of describing to us their conscious states in any way whatever. The more we study in this direction, the more do we seem to be thrown back practically to the consideration of our own conscious experience.

Our comprehension of these psychic states is also subject to another and a greater limitation; for we notice even within ourselves a great many activities that vary very

widely in their effect upon consciousness. We discover, in the first place, many activities within us that do not seem to affect what we call consciousness in any respect whatever; activities that we should never know to occur did we not note their results; such activities for instance as are involved in secretion by the kidneys, and in the general action of the intestinal glands.

In the second place we find certain other very numerous sets of activities which only occasionally affect consciousness; of which we have example in the activities of heart and lungs: these organs may perform their proper functions regularly for days or years without our gaining any direct apprehension of their existence at all; and yet at any moment we may become painfully conscious of their existence if this regular functioning be disturbed.

In the third place we find certain less numerous sets of activities which always present themselves in the light of our conscious life as often as they occur, but which nevertheless seem to be all but independent of what we call "ourselves," which seem almost to be forced upon us, as it were, from without ourselves: as examples of such activities we may note, for instance, the functioning that goes with the dodging of an unexpected blow, or with the involuntary rubbing of an itching surface, or with a burst of joyous laughter.

Finally we come to see that there is an exceedingly narrow set of activities, relatively speaking, which seem to involve our very selves, which demand our close attention, involve our effort, and are determined by what we call our will.

It becomes very clear, then, as I have said above, that there is a strong contrast between the enormous breadth of the field of animal activity that we consider in an objective view, and the extreme narrowness of that field which

presents itself to our subjective view in consciousness: nevertheless it is well to study the two fields together if for no other reason than that the subjective field, although so much narrower, has an interest and a value for us that does not attach to the objective field,—an interest and value that is given by the fact that it leads us to the intimate study of what belongs to our own personal nature.

It will be apparent to the reader that thorough study of the subject before us from both the subjective and objective points of view, implies in the student a just conception of the relation between physical and mental states, and to this subject I now turn in the second division of this chapter.

II.—OF MENTAL AND PHYSICAL PARALLELISM

I

§ 4. In the very early stages of the rise of intelligence men learned to think of themselves as souls, as mental beings who inhabited and made use of the body. They had none of the knowledge we possess of the nervous system, which we know to be so intimately connected with mental functioning, nor indeed did they understand any part of the mechanism of bodily functioning; but they noted their companions making use of their bodily members in much the same way in which they used the natural elements around them, and their own experience told them that the soul within them seemed to determine the actions of these bodily members as much as it seemed to determine the picking up of the stone or club. Perhaps it is too much even to say that they noted anything of this; the conception must have grown naturally into their lives long before any man reached the stage of intelligence which was necessary before he could think out or express the relation as we here state it. That early man did gain this notion, however, is clear from such study as we can give to the remnant of savage men now living.

They had seen death; and they interpreted it as the permanent departure of the spirit out of the body, so that the spirit could no longer make use of it. They had daily evidence of the temporary departure of this spirit in the recurrence of sleep, which they interpreted in the very same way; and the dreams recalled in waking hours were looked upon as remembrances of the activities of the spirit while out of the body during the silence of sleep. They had seen states of total failure of bodily activity connected with

temporary unconsciousness, due to violence or accident or disease, and then of the return to full mental vigour; and how else could this be interpreted by them but as the departure and return of the spirit that used the body as through the mediate instrumentality of the body it used the club and the stone. They had seen trance states too, and states of delirium, in which the bodies of their companions acted in unexpected and inexplicable ways, and they judged from the strange words they heard at such times that the spirit which usually occupied and used the body of their companion had gone out of him and had been displaced by some other spirit, usually an evil one, which had used the same body in this strange manner. Is it a wonder that they thought it proper to kill in order to drive away this evil spirit from their midst, or to resort to torture in order to displace the intruder and to recall the spirit which was the proper owner of the body of their companion?

Crude as these notions seem at the first glance, a moment's thought will convince us that they have come down to our own time, and that in no greatly altered shape they are held to-day not only by the ignorant but by the vast mass of men of intelligence.

It is true that the form of this conception has changed as man has advanced, for it has become clear to all that our sensational and perceptual experiences cannot be produced by the soul, inasmuch as they are evidently determined by the effects of the environment upon us.

Yet this observation has not led to an abandonment of the theory; rather has it led to the acceptance of a limitation of soul life to volitional experience, to a consideration of sensation and perception as in a way apart from the soul life, to an artificial division of consciousness into mind and spirit, with which spirit the volitional guidance of our activities is identified, this spirit being considered all-

important in this connection: and this conception has been almost universally current amongst thoughtful people until very lately, and is still current with a large proportion of intelligent people who have not given especial attention to this subject.

§ 5. As a matter of fact this theory of the action of mind upon and through the body served well to interpret the activities of man, and became fixed, and was believed to be a true conception, long before the time when thoughtful men began to study the nature of the human spirit itself.

Most naturally one of the early questions to excite the curiosity of students was that as to the *locus* of the spirit when it resided in the body. As spirit was conceived as a unit, it was probably at first supposed to have its home in some one spot within the body, and as we shall presently see this view has not lost its hold in later times. Aristotle, we find, located the central organ of the soul in the heart, which he thought to be the seat of sensations; the brain he thought to be an organ of subordinate importance: but in this very conception of the dominance of one organ over another he shows the influence of suggestions, which must have arisen very early, that the spirit was not altogether a unit, but that its different "faculties" resided in different organs; we know that the heart, the spleen, the liver, were at one time thought to be the special seats of special parts of the spirit life.

The modern discovery of the nature of the nervous system and of the centralisation of neural control in the brain has led to a renewal of this quest. Descartes held that the soul, as an unextended being, could come in contact with the body only in one point, and having noted in the brain the pineal gland, which is apparently simple, and not duplicated,

he suggested that in this gland we had the very seat of spirit life. Even in our own day, in which the specialisation of definite parts of the brain to special functioning is so much insisted upon, we still find men of acknowledged force attempting to find a single seat for mental control in endeavouring to discover the organ of attention, which they look upon as the special essence of egohood rather than as a general quality of all conscious life.

§ 6. Notwithstanding that this theory has passed muster for so many centuries, there are certain facts of experience of which it takes no account whatever, and which indeed, as we discover when we examine the matter closely, it cannot explain. As we have already said, a most serious limitation of the theory appears when we consider the ordinary facts of sensational experience. Here we note the forces of the environment acting upon our bodily organs and producing alterations in the stream of consciousness. It is impossible to say that our spirits here *produce* the effect upon our bodily organs, for the effect is produced whether we desire it or not, and in most cases the spirit finds itself powerless to prevent this effect in consciousness, which is clearly determined in some way or another by the action of some part of the body.

But passing over this limitation there is a very serious difficulty in interpreting under the theory the fact that the spirit cannot be held to use *all* the bodily organs. There are a great many bodily activities which no defender of the doctrine under consideration can claim to be determined by the mind. The so-called "reflex actions" are the most conspicuous examples of such activities; in order to explain them it must be held that the mind stands aside and views the mechanical activities of the body, only occasionally stepping in to influence the action of a limited part of these

activities, and avoiding all disturbance of a large part of them, to which it gives no heed whatever.

But our attention is especially called to the fact that there are certain activities which the spirit at times does, and at other times does not, seem to influence. My breathing ordinarily goes on without anything that can be called direction from my spirit; and yet if I wish I can hasten or decrease the rapidity of both expiration and inspiration.

This difficulty may of course be overcome by supposing the spirit to be an utterly reckless entity, under no restraint as to its exercise of freedom, and capable of playing with these certain parts of the bodily organism whenever it chooses to do so, leaving them to act automatically when the play becomes a bore.

There are certain of the facts in relation to such activities, however, which are entirely inexplicable under this view. We find that certain bodily activities which we could play with thus years ago have passed out of our control to-day; and as we look a little deeper we discover that this has been due to what we have come to call our habits of action in the past.

And when we study the phenomena of habit we note a distinct and definite order of these events which is clearly beyond our control, which is evidently forced upon us from without, and this clearly shows that we have not (as at first appeared) this capacity to play with certain activities altogether as we choose. Certain actions in my body, which ten years ago could not occur without a distinct effort of will, I have found becoming less and less difficult of performance from year to year, and eventually a time has come when I have found them occurring without any effort on my part at all; furthermore, at a later time I have discovered that I have lost altogether the power to control them; that, given the proper stimulus, the actions occur even

if I wish they would not; and finally I have reached a point when I am not at all conscious of these habits of action unless my attention is especially drawn to them.

Now, of course, under the theory we are examining it might be possible to hold in respect to any one case that a person could choose to lessen his direction of these activities in a decreasing ratio until he ceased to care to bother with them at all; but no one after serious thought would for a moment hold such a view, for he knows by daily experience that the order of events resulting from habit is always and invariably the same, and that this order is forced upon him, and that it cannot in any way be changed by him so long as the necessary repetitions of the activities are given. To this we refer again in § 12.

II

§ 7. These facts not unnaturally suggest that we may have been deceived by the point of view from which we have been looking at the subject; that the activities themselves may have to do with the production of the effects in consciousness instead of consciousness having the power to produce bodily activities; that bodily activities may result in the rise of consciousness under certain conditions; and that as these conditions change in a regular order, so their power to produce conscious effects may be lost in a corresponding order. We are brought thus naturally to consider the theory which most people think of as standing in opposition to the one just studied,—the theory that body acts upon and affects mind, that conscious effects are altogether dependent upon and determined by the activities of the body with which they are connected.

This theory has clearly an advantage over the theory just discussed, in the fact that it offers an explanation of

sensational and perceptual experience which the first theory was altogether unable to give; for here it appears clear that if the action of bodily organs determines consciousness, then the direct effects from the environment upon our bodies will be the most likely of all things to influence mental states.

This theory has gained great strength amongst men of science in later times in consequence of the growing interest they have taken in explaining and relating the phenomena of the environment in terms of matter and motion; as animals around us and our fellow-men are part and parcel of material nature, there has been a most natural desire to interpret their changes of condition in these same terms, and the consciousness which we judge accompanies at least some of their activities naturally presents itself therefore for subsumption under the general formulas the scientists are attempting to elucidate.

Indeed this view is at the first glance a most plausible one, for we will have to acknowledge, I think, that were we beings far removed from man's experience, endowed with powers of observation and intellectual discrimination, and withal acquainted with the methods of modern science, we would certainly come to look upon all animals, inclusive of mankind, as a special type of natural objects which are differentiated from other objects mainly by the fact that they are nicely adapted to effect the transfer of ethereal and molecular forces into forms of mechanical energy. This we would judge from experiment, by eliminating the incidence of these ethereal and molecular forces and noting the reduction of the mechanical energies then displayed; and by noting also that animals alone, and no other natural objects, show this same relation of mechanical result to ethereal or molecular incidence. We should then come to look upon animals as relatively permanent objects, capable

of recurrent explosions upon the reception of the proper stimuli correspondingly recurrent; as bodies capable from time to time of the production of a large amount of energy of one type, as the result of the impression upon them of a small amount of energy of another type.

As the result of this conception, if we became cognisant of the existence of consciousness in connection with bodily activities in man as thus observed, we should most naturally conclude that consciousness was produced solely and entirely by the activities noted.

§ 8. This doctrine has put on a new form in modern times in consequence of the discovery of the marked importance to consciousness of the existence of the brain and the connected nervous system, and it has gained great strength in consequence of the close attention given to the study of the mechanical activities displayed in nervous matter.

So marked is the influence of this theory that the word *brain* is very frequently used as a synonym for *mind*; and this not only by professed defenders of the mechanical origin of mental states, but as often by those who would be shocked to think they could be accused of holding any such opinion. It is the commonest thing, for instance, to hear even the firmest believers in the theory that mind uses the body speaking of men of powerful brain, and of their own brains, as being active or inactive, when they really refer to their own minds, or to the minds of others.

Brain as an Organ of Mind is the title Bastian gives to a book; the production of mental phenomena is looked upon as a function of the brain, much as the supplying of oxygen to the blood is conceived to be a function of the lungs; the brain is considered to excrete mind, very much as the liver excretes the bile, and the kidneys excrete the

urine. The theory is indeed not often stated in so harsh a form, but the common statement that brain activity produces consciousness involves the same conception.

This theory not only explains the facts of sensational experience, as we have already noted, as the theory first discussed does not, but it also has the great advantage of furnishing us with a plausible explanation of the phenomena of habit which the first-named theory left unaccounted for. Consciousness under this view is determined by resistance to neural discharge; and the loss of conscious control, and finally of consciousness itself, which gradually appears as the result of habitual reaction, is explained as due to the gradual overcoming of the resistance.

§ 9. But if on the one hand this theory appears plausible just where the first-mentioned theory breaks down, on the other hand this second theory breaks down just where the other theory proves most satisfactory. As we have seen, it is not difficult, under the theory that mind uses the body, to explain the fact that certain activities which are at times unconscious are at other times accompanied by marked changes in our mental states, if we suppose that the mind in the first instance does not care to influence these bodily activities, but in the second instance chooses to determine their form or direction.

But under the mechanical theory now before us no satisfactory explanation of these facts is presented. If certain forms of brain activity "excrete" consciousness at one time, why should they not always "excrete" consciousness in cases where habit has not acted to produce unconsciousness? How can this theory account for the fact that while I usually breathe regularly without any knowledge that I am breathing, yet at times I am able to control this breathing? How does it happen that certain activities,

which are unconscious, but which we know, although from objective evidence only, to be going on within us, suddenly become conscious, pass the "threshold," as we say, when they rise to a certain degree of objectively noted intensity? How does it happen that some result, which we ordinarily reach through a train of conscious reasoning, is at times known only in its final step, all the preliminaries being unconscious? The hypothesis of "unconscious cerebration," while describing the facts in what may be held to be scientific form, does not in any way explain why, if the corresponding brain activities do usually "excrete" consciousness, they should appear in these other cases without producing any recognisable mental effects.

These difficulties are waived by a large body of those whose attention is riveted upon the physical facts by making the assumption that "consciousness is a phenomena superadded to movement and independent of it";¹ they ask us to look upon the conscious states accompanying nervous activities as mere "epiphenomena," affecting the mechanical nervous action no more than the squeak of a cart-wheel affects the progress of the cart, to borrow a descriptive phrase from Professor Huxley.

But it is to be noted that if we hold that certain physical activities cause consciousness and others do not, then it seems pretty clear that the functioning in the two cases must in some way differ, that consciousness must have some efficiency;² and if this is the case it seems highly improbable under our conceptions of evolution that consciousness, if it once entered into the series of mechanical biological phenomena, should have been able to hold its own and to have become developed and elaborated if it has been

¹ Richet; *Essai de Psychologie Generale*, p. 115.

² Cf. Paulhan; *Phenomenes Affectifs*, p. 13, also C. Lloyd Morgan, as referred to in Chapter XVII. § 10, below.

of no moment, a mere "epiphenomenon," a mere shadow of a moving atom. If we are to hold to this last-mentioned doctrine, therefore, it appears that we may be compelled to abandon the theory of the causal interaction of body and mind altogether. This suggests the question whether this theory of causal interaction is one which must necessarily be upheld, and to this question I would now turn the reader's attention for a moment.

§ 10. Before doing so, however, I wish to say a word in reference to both the theories which we have already discussed, and neither of which we have found to be satisfactory. As we have already seen, it is not unnatural that the old notions of the use of the body by the mind should have clung to us, and that we should find a school of thinkers who interpret the newly-discovered facts in terms of the hypothesis that mind influences the body, and who are unwilling to renounce the claim that human consciousness is fuller and wider than neural reaction. In fact such theorists are able to support their position by pointing to the vast fields of conscious activity that cannot be positively shown to be determined by any known neural activity; and they are thus led to hold that investigation has shown no more than the fact that special mental states are in themselves efficient to produce nervous action; and to claim therefore that these mental states are the all-important matter for consideration in discussing the relation between neural and psychic action.

My reader will say truly that no body of serious and learned psychologists in our day hold such an extreme view, but he will agree that this is practically the position taken by many unlearned in psychology who earnestly attack all opposed views as dangerous materialism.

I refer again to this view, however, principally because

I wish to note that equally unwarranted appears the position of an opposite school which includes amongst its numbers not a few of our eminent scientists, who are wont to look upon those who cling to that theory of ancient pedigree, of which we have just spoken, as gullible fools. Those who hold the theory to which we now refer call attention to the fact that action of nerve is explicable in very much the same terms in which we describe the mechanical forces of nature that surround us; and emphasising the fact that a great deal of nervous action does not appreciably affect consciousness at all, they are wont to contend that therefore this action of nerve must be all-important for our consideration in discussing the relation between mental and neural actions; and some of them, as already noted, ask us to look upon the accompanying conscious states as merely "epiphenomena."

But why, we are at once tempted to ask, is the claim of the extremists of one school better than that of the extremists of the other, when of these two sets of facts which we know to bear a very close relation to one another, each set in turn is held to be alone of significance? And this point I wish to make clear: that if the view first mentioned assumes too much in proclaiming the all-importance of the conscious aspect in relation to neural change, equally may it be held that the second view assumes too much in proclaiming the all-importance of the neural changes and the total unimportance of the coincidents in consciousness. If one view be rejected because of its dogmatism, then the other view must be rejected for exactly the same reason.

§ 11. Let us now return to the question suggested at the close of § 9—the question whether the hypothesis of causal interaction between mind and body is a

necessary one, or one which is likely to be found to be satisfactory.

The two theories which we have already discussed involve assumptions the consideration of which might easily lead us to plunge deep into metaphysical polemics. This I wish to avoid, and I do not think it necessary, for the reason that the theories we are here discussing are related only to the common-sense conception of cause and effect. In passing, however, I may say a word concerning the less commonplace conception of causality.

As Professor Stumpf has said,¹ definite processes appear in the motor centres of the cortex not merely in consequence of physiological conditions, but only in connection with co-ordinate effects of a definite psychic type (*e.g.* Emotion, Will); and it is impossible to conceive these psychic states as other than part of the conditions which are antecedent to the active resultant, and these conditions must one and all be taken into consideration in the discussion of causality. But if we take this view it seems to me that we are led to one of two positions: either the psychic effects alter the quantum of physical energy, and of this I think Professor Stumpf agrees there is no adequate evidence; or else we must assume that there is a something psychic in connection with all that interaction which we describe as cause and effect, and this latter position is one in favour of which, as I shall presently attempt to show, much may be said.

The common-sense conception of cause and effect, however, does not deal with any such notions; it deals altogether with what it calls mechanical energies, and in the two theories above discussed consciousness is always considered as a mechanical thing, although few disputants appear to recognise the fact, especially if they are upholders of the first theory studied.

¹ Presidential address at the Berlin Psychological Congress.

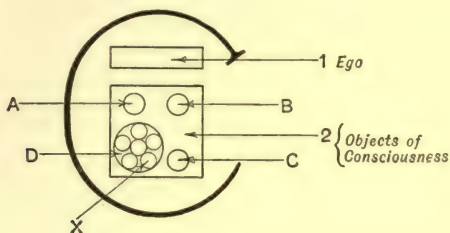
The causal relation, as men usually consider it, involves the action and reaction of what appear to us as diverse objects. We find, however, that in practice objects can be separated into strata, so to speak, into divisions; that they can be measured by certain scales; and we find also that the causal relation, as common sense understands it, can best be traced within given strata, among the elements of specific divisions, between those objects which are commensurable.

The average man finds no difficulty in speaking of the dynamic blow as directly causing the dynamic explosion: it is for him not difficult, although less easy, to speak of the insect as causing the fertilisation of the flower, or of heat as causing a change in the electrical conditions of a body; the elements here supposed to be causally related are in a sense conceived of as belonging to the same set of objects. He finds it much more difficult, however, to conceive of a direct causal relation existing between the elements of the several divisions, between heat and the action of the insect, or between electricity and the fertilisation of the flower; some mediating cause is usually demanded to link together these objects observed in diverse strata.

Greater still, all but impossible, is it for him to conceive of a causal relation as existing between a whole object and some part of this whole; he cannot easily think of one planet in the solar system acting causally upon the whole system, or of the whole system acting causally upon one planet which is part and parcel of the system. But it is just such a causal relation between a part and a whole which he is forced to consider when he holds that mind produces bodily activity, or that neural activity produces consciousness.

This becomes apparent if we lay aside the crude dualism in which we have expressed the facts in what has preceded this, and substitute a more correct statement in terms of

consciousness. Consciousness is a whole, a unit, within which are certain differentiated parts, still of consciousness, which we call objects; of these objects there are many classes—one of these classes includes what we call “objects in nature.” Of these “objects in nature” there are also very many kinds, and one of these particular objects is known to us as “active nerve matter in ourselves.” It is this part, of a part, of a part, of consciousness which common-sense strives to relate causally to the whole of consciousness. This may appear clearer if we present it in diagrammatic form.



Here C represents the whole of consciousness: within C are two grand divisions, the “ego” represented by the oblong 1, and “objects of consciousness” represented by the square 2. Within the division “objects of consciousness” (2) we find many subdivisions, say A B C D . . . N; one of these divisions (D) gives us what we call “objects in the outer world.” Within this special subdivision there are many subdivisions of lower grade, one of which (X) we call “action of our brain.” It is between the whole of C, and this part of C which we designate as X, that we must conceive of a causal relation under the two theories we have thus far been studying.

The difficulty of this conception is so great that, when we couple it with the difficulties inherent in the theories derived from it, we are led to ask whether there is not some

other working hypothesis which common-sense can easily grasp which will enable us to attain the end we have in view, namely the unifying of the observed facts of consciousness. It seems to me that the hypothesis of causal interaction is not a necessary one to be considered in this connection, that there is another equally tenable, and one which serves our purpose well. I refer to the hypothesis of *parallelism* between mental and physical facts, an hypothesis which waives the whole question of causal relation, leaving to other study the description of the nature of that cause, which at one moment and in one act produces on the one hand the conscious state, and on the other hand the physical reaction which is coincident with it. If this working hypothesis serve to account for the relation observed between the two sets of phenomena, and aid us in the unifying of the facts of consciousness, then we may hold it to be probably valid, and we are warranted in clinging to it until considerations are presented to us by the metaphysician which teach us that it is untenable. I think it can be shown that this hypothesis serves us well in the two directions above mentioned, and to the consideration of it in some detail we shall now turn in the following sections.

III

§ 12. The theory of parallelism is of course no new one ; the names of Clifford, of Fechner, of Zöllner, and of a small host of minor thinkers are connected in our minds with its statement and elaboration. Let us consider briefly the data of experience which have suggested it.

It is only as the result of inference from experience that we come to believe that there is any consciousness besides our own. Noting that our own actions are accompanied by consciousness we conclude that similar activities in our

fellow-men are also accompanied by consciousness; and we further conclude that the activities of animals closely resembling ours are accompanied by consciousness in them also.

Having noted the close connection between the expressive activities which we judge involve consciousness in others, and the activity of nerve in them, we would naturally be led to hold, did we not make careful cross examination of experience, that all actions of men, and therefore of animals, must be accompanied by consciousness. Nor if we take this step can we stop there, for it appears that there is little reason why we should attribute consciousness to the activity of nerve only among all activities, no reason why all activities should not have correspondent consciousness. There is no moment in which, no point at which, consciousness can properly be conceived to enter in such a continuous process as must exist if the theory of evolution be valid. As Professor James well says,¹ "Consciousness, however small, is an illegitimate birth in any philosophy that starts without it, and yet professes to explain all facts by continuous evolution."

This conclusion will be again considered briefly in a hypothetical way as a bit of metaphysics in the last section of this chapter; but here, where we are trying to avoid metaphysical discussion, we must note that after all, if we question experience closely, we cannot come to the conclusion reached above; or at least we find it necessary to modify our statement materially. For if we consider our own activities only, and our nervous activities in particular, we find that consciousness does not appear wherever nervous action takes place, as was at first suggested by our observations; we discover what we call reflex actions in ourselves, which apparently do not influence consciousness at all: and

¹ *Psychology*, vol. i. p. 149.

these facts have led to the widely accepted view that many activities in animals of low type are altogether unconscious, and that the transfer of energy in inorganic masses has no psychic coincident at all.

The difficulty of determining the special conditions of activity which do involve consciousness are so great that some men like Professor James, who see all the facts before them, are led to hold¹ "that the particulars of the distribution of consciousness point to its being efficacious." He tells us that adaptation to a useful end becomes difficult in a complex nervous system, just because of the instability of the system; "the performances of a high brain are like dice thrown for ever on a table"; and he is led to surmise that consciousness comes in as an efficient force to "load the dice" and determine the direction of the activity.

But we have already seen that this view is incompatible with the facts of the loss of control as the result of habit. In many cases it is true that the facts are explicable under Professor James's clever hypothesis, that "habitual actions are certain and need no extraneous help";² but this hypothesis does not enable us to understand the facts discussed in connection with the appearance of these habitual actions when they are forced upon us from without. Experience in general and educational methods in particular to a great extent compel us, whether we will or not, to undertake activities, which in the beginning require full consciousness; and they compel our continuance of these activities until the coincident consciousness loses its vividness, and in extreme cases disappears altogether.

The criminal in the treadmill starts with a full consciousness of the physical process, and with an opposition to it. But if the work required be well within the capacity of

¹ *Psychology*, vol. i. p. 138 ff.

² *Op. cit.* p. 142.

the man he may soon come to forget it altogether, and may "employ his mind" on other matters entirely unrelated to his routine actions. The child who is compelled to "practise" upon the piano goes through a very similar experience.

Surely in such cases it cannot be held that consciousness chooses to withdraw its concurrence as the nerve becomes educated to its new work. Surely it is not the necessity of "loading the dice" which involves the consciousness nor the loss of this necessity which involves unconsciousness: the "dice are loaded" for us by the forces which affect us from without.

§ 13. But if the theory of causal interaction is to be displaced for our purposes by the theory of parallelism, the latter must give some rational explanation of the rise and disappearance of consciousness in connection with nervous activities which are at times accompanied by consciousness and at other times not.

This difficulty has been overcome by certain defenders of the "automaton theory" by holding that we are in error when we state that certain nervous activities are at times accompanied by mental states and at other times are not; by holding that the facts are explicable under the minor hypothesis that there are "unconscious mental states" which are attached to those nervous activities which we call unconscious.

This special hypothesis is not without its difficulties, to which I refer more fully below; but it seems to me that these difficulties are for the most part connected with the statement of the doctrine rather than with its essential nature. At the time when it was brought into greatest notice the facts of our conscious experience were stated very generally in atomistic terms, and the connection between parts of consciousness was explained in the language of the

physical and chemical sciences which were then most prominent in men's minds. We in these later times have given up the notion that consciousness is a mass made up of a lot of bits glued together, or mechanically attached, or chemically combined into new wholes, and it is but fair to the hypothesis before us to make an attempt to state it in terms conformable with our modern psychological notions.

§ 14. Under the hypothesis we are now to examine there is something mental, a psychic somewhat, in connection with, and arising coincidently with, each neural activity within us. This psychic coincident of neural activity I shall from this time on speak of as *mentality*. It is further claimed that under certain conditions which are to be determined, and only under these conditions, this mentality acquires certain characteristics which *ipso facto* make it consciousness.

Let us briefly note some of the reasons which seem to indicate the possible existence of this mentality out of which consciousness is formed, before we attempt to discover the conditions which may determine this formation, or to test the value of the theory as a working hypothesis.

§ 15. In the first place it seems to me that some such hypothesis is demanded to account for the totality of our experience as it is viewed in introspection: for in the moment of reflection we find in all cases what have been called the fields of Attention and of Inattention. We find them and nothing more.¹

The field of attention is that part of the psychosis of any moment which appears to be most important to us, and

¹ I take this opportunity to express my great obligations to Dr. James Ward, whose treatment of the field of Attention in his "Psychology" in the *Encyclopædia Britannica* first led me to work out the hypotheses which I here present.

which careless people for the most part speak of as the whole of consciousness. And yet it is apparent to all that no line can be drawn between the fields of attention and of inattention; the former fades into the latter; out of this field of inattention the field of attention is felt to rise without any discontinuity.

Moreover, the field of inattention seems to dissipate itself into space, if we may use a simile determined by the fuller psychic life; it seems to resolve itself into an *aura* as it were, which aura has now a "feel" of being fuller, and now of being narrower: but withal there are apparent no marks of discontinuity in the whole mass, although there are apparently large parts of this aura which we are entirely unable to get into the field of attention at all, or even to draw out of the vague nebulous-like psychic mists which mark the fading away of consciousness into unconsciousness.

The observation that this aura at times seems to be fuller, and again narrower, surely points to the existence of something psychic beyond either the fields of attention or of inattention, points to the existence of mentality out of which consciousness whether of attention or of inattention arises.

In the phenomena of the disappearance of consciousness with the acquisition of habit we have also a fading of the consciousness into the aura: no suddenness of disappearance. Furthermore, before habits become altogether reflex we note times when the field of inattention is affected by the activities involved, and again times when it is not so affected; as though the mere mentality which we are assuming had not yet in the former case altogether lost the qualities which make it possible for it to gain finally the characteristics of consciousness.

It seems to me that these facts, added to the former suggestions made, are of sufficient moment to warrant us in

holding that the hypothesis is not unworthy of a somewhat detailed examination.

§ 16. But if we make the assumption of the existence of mentality as coincident with each and every neural activity we are at once compelled to consider what may be the qualities which result in the formation of consciousness out of this mere mentality.

The most natural suggestion arises in connection with the observation that not all of nerve action affects our consciousness. It is patent that the action of nerve in other individuals does not appreciably affect our consciousness at all, so patent that it might appear absurd to speak as though it were possible that it could do so were it not that the observation seems to give us a suggestion of what might be the basis of the disappearance of consciousness in ourselves: for the difference between nerve in others and nerve in ourselves is a difference of complete separateness; and the question is not unnaturally suggested whether it may not be that the *separation* of certain active nerves from the central brain system will suffice to account for the facts of the absence of consciousness in connection with the neural activities within us.

The possibility that this suggestion may be of value is strengthened by the observation of the relative disconnectedness between the brain and the nervous ganglia which have to do with those activities in our body which are not thought to influence consciousness. The spinal ganglia, the sympathetic nervous system which has so much to do with the rhythmical activities of the digestive and circulatory systems, are both practically separated from the brain, which latter it is possible to assume to be the "organ of mind."

Although there are difficulties connected with the explanation of the limits and conditions of this disconnection, these might possibly be overcome; but it is not worth while

to discuss the questions involved because there is a serious flaw involved in the main suggestion: it fails to account on the one hand for the fact that activities in nerve tracts which are evidently connected with the brain and which often affect consciousness are at times unable to affect it appreciably, and on the other hand for the fact that activities of nerve relatively disconnected from the brain, and which do not ordinarily affect consciousness, do at times affect consciousness without any appearance of an increase of the closeness of connection.

The auditory nerves, for instance, are very closely connected with the brain, and stimulations of the ear almost invariably affect consciousness; nevertheless intense concentration of mind upon the solution of some problem is likely to prevent one from being in any way conscious of comparatively loud sounds such as the striking of the clock in the room. On the other hand, the relative disconnectedness from the brain of the nerves of the digestive system is acknowledged, and referred to by those who defend the view we are for the moment considering in corroboration of their contention that disconnectedness from the brain is the basis of unconsciousness; nevertheless we know that in certain states of consciousness of low grade, so to speak, in the consciousness of dream life for instance, these activities do produce effective alteration of the psychic stream.

§ 17. The notion that disconnection from the brain is the cause of the failure of consciousness has real value, however, in the fact that it suggests a view which seems to be more tenable. If we turn our attention to the continuity of consciousness which we acknowledge in describing it as a "stream," or as a "field," we perceive that connectedness necessarily implies the existence of a continuum; and this in turn suggests that possibly *continuity* may be of the

essence of the neural activity which is the coincident of consciousness, as consciousness is differentiated from mere mentality.

The mere action of nerve itself does not involve continuity; but action of a nervous *system* does involve continuity, for it involves the re-establishment of the conditions which make activity possible, by the renewal of neural capacity through the absorption of nutriment which is constantly offered to the nerve substance by the arterial system.

A nervous system in action thus appears as what we may call a reverberant continuum, and consciousness on the other hand may itself be also described as a reverberant continuum. This reverberance in consciousness is involved in what is ordinarily called revival; and when we come to consider the difference between the activities which affect our consciousness, and those which we call unconscious, we are compelled to agree that we call those conscious which are revivable, which endure for some recognised period,¹ while the activities which we say are not accompanied by consciousness might equally well be described not positively as those which are not accompanied by a psychic state, but negatively as those which are accompanied by no psychic state that is revivable.²

Our attention is thus drawn on the one side to action of a nervous system which is in a sense a relative continuum, and on the other hand to a coincident consciousness which is also in a sense a relative continuum; and we are now prepared, I think, to make a restatement of the hypothesis of parallelism which seems to me to avoid the difficulties that have presented themselves to our minds in connection with the statements of the doctrine already considered.

¹ Cf. Ribot, *Diseases of Memory*, p. 34.

² Cf. Wundt, *Phy. Psy.* vol. ii. ch. xxi. s. 1; Höfding, *Psy. im. Umrissen*, ii. v.; Clifford, *Collected Essays*, p. 255.

§ 18. We may assume, then, that coincident with each neural activity there is a psychic activity, a certain mentality, and that when neural activities are developed into a system which involves reverberant continuance then appears a correspondent form of psychic system which also involves reverberant continuance and which is consciousness.

As thus conceived a consciousness at any moment is the whole pulse of the co-ordinated psychic activity coincident with the co-ordinated activity of a neural system.

Neural activities which are not in any way connected with the neural system under consideration can have no effect upon the pulse of its coincident consciousness. Correspondingly, neural activities which under some conditions do, and under others do not, form part of the system, will at the one time affect and at the other time will not affect the coincident consciousness.

A neural activity which is not a part of a system cannot have corresponding with it any influence within a consciousness, although it must be assumed to have corresponding with it some species of "mentality" which under the proper conditions may gain its place in a consciousness.

Neural systems may be of different grades of complexity and co-ordination, and distinct systems may exist within the same animal body. Such distinct neural systems may under certain conditions at times be separate; and at other times, and under other conditions, we may conceive them to form one more or less thoroughly co-ordinated system: the total system will be dependent for its form upon the forms of the partial systems, but can in no sense be looked upon as a sum of the partial systems.

In correspondence with the activities of these separate neural systems we will then have distinct consciousnesses which may exist in connection with the same body, and under certain conditions these distinct consciousnesses will

remain separated, while at other times they may blend into one consciousness of a new form determined by the whole pulse of the psychic activities involved.

Moreover, each active neural system will have its expressive motor resultants which will be complex as the system is complex, or simple as the system is simple. Thus when two distinct systems combine to form one system the expressive action will be that of the whole new system thus formed, affected indeed by all the neural activities thus joined, but not a mere sum of the two expressions, any more than the activity of the new system is the sum of the activities of the two systems that have been conjoined, or the wider consciousness a sum of the minor consciousnesses out of which it is formed.

Corresponding with these expressions of neural activity there will appear states of consciousness which will alter in breadth in proportion to the complexity of the neural systems involved; and when under special conditions two distinct neural systems become one, then the state of consciousness corresponding with the expressive activity will be one pulse, influenced indeed by the different elements involved but in no sense the summation of these elements.

§ 19. If we turn from these general considerations to the interpretation of the facts with which we are acquainted, we perceive that the disconnection between the neural systems of different individual animals is so far complete that it is impossible for them to merge, and we should expect to find, what we do find in fact, the general acknowledgment that the consciousness of one individual cannot merge with the consciousness of another;¹ that only indirectly can the content of another mind be imagined by

¹ I refer in the closing section of this chapter to a development of this hypothesis which suggests the transcendence of this separation.

me through comparison with the content accompanying certain expressions in myself which I perceive to correspond with the expressions of the other individual; that his mental state, to use Clifford's phrase, is known to me only as an "eject."

§ 20. We perceive further that we are compelled to grant that, inasmuch as there are different grades of neural systematisation in animals of different grades, so there must be different forms of consciousness in animals of diverse types corresponding to the varieties of neural systematisation appearing in them: and we note that this is generally acknowledged to be true.

But we find it impossible to stop here, for we note in the animals we are able to dissect evidences of the existence within their bodies of self-complete neural systems which are almost if not entirely disconnected from each other, which at all events in animals of lower grades may be completely disconnected from each other by the knife; and we note that these separated nervous systems have each their forms of motor expression when thus separated. We are thus forced to assume that the activities of these separate systems within the same individual body have correspondent to them separate consciousnesses.

We note further that as these separated systems vary in complexity so their motor expressions vary in complexity, and if we view the individual animal as a whole we are able to assert that there is a hierarchal order in which these systems may be graded, and we judge therefore that there must be a corresponding hierarchy amongst the coincident consciousnesses.

We are able to assert furthermore that where these distinct systems are not totally separated, where systems of less complexity are lightly connected with systems of great

complexity, then the systems of higher complexity must be of the greatest moment in affecting the total activity when the distinct systems act as one system ; and where we discover some one neural system which is of immensely greater complexity and integration than all other distinct systems within the same body, as the brain system in all higher animals is related to all other neural systems, then we must assume that this system is of pre-eminent importance in the total systemic action which occurs when the less important systems merge their activities with the greater system.

Correspondingly on the psychic side we must assume that, where these distinct consciousnesses are not wholly separated, the total pulse of the new consciousness formed by the unification must be influenced by the elementary consciousnesses which are unified, in proportion to their importance ; and in the case of all higher animals where one of the neural systems, viz. the brain system, is of such notable complexity, we must assume that to it must correspond a pre-eminent influence in the constitution of the pulse of the new consciousness which is formed as the result of this unification.

§ 21. But it is to be noted further that dissection of the animal man shows the same general arrangement of neural systems in him that is found in the higher animals, except that the brain system in man is of immensely greater complexity than in the case of other animals, and correspondingly dominates the whole complex system which is formed by the unification of the separate neural systems which exist side by side with it. Such being the case, we ought to be able to verify our hypothesis by direct appeal to our own mental life.

As a matter of fact what man speaks of as his conscious-

ness appears to the average observer to be coincident with the activity of his brain, which has the same general forms of expression that are found connected with brain action in the higher animals; although these forms of expression in man are much more highly developed, are enormously more complex, than the corresponding forms of expression in animals, just as we should expect them to be in consideration of the great increase in development and complexity noted in the brain of man when it is compared with the brain of the highest animal below him in the scale.

Activity in man's brain, as we have said, has the same general forms of expression that are found connected with the brain action in the higher animals, but one special form of this expression in man has become so immensely developed that it appears practically as an entirely new type of expression and is indeed the distinguishing mark of man's brain capacity: I refer of course to the form of expression which we call speech, with its special elaboration in written language. It is the pulse of consciousness coincident with the brain activity within me, and which is usually expressed in speech or written language, which I call my consciousness.

But as there are usually within me other minor neural systems more or less disconnected from the brain system, and which have the same general forms of expression noted in connection with the activities of similar minor neural systems in the higher animals, I must assume the existence within me of minor consciousnesses coincident with the activities of these minor neural systems within my body. There must be minor consciousnesses connected with these expressions of activity of the spinal ganglia, and of the sympathetic nervous system, which seem to take place without disturbance of the action of the brain; and, as we should expect, these actions under such conditions do

not affect the pulse of consciousness which is coincident with the pulse of brain activity.

It is the pre-eminent consciousness, the brain consciousness, the "speech" consciousness, which is all-important in our consideration, for it is the only consciousness within my body which has the capacity to influence those trains of thought which finally express themselves in logical forms and in spoken and written language, and the only consciousness with which introspection and therefore psychology can possibly deal.

But inasmuch as the brain is not totally disconnected from the minor neural systems, if our hypothesis be correct, we should not be surprised to note times when under certain conditions the minor consciousnesses and the pre-eminent consciousness would merge into one wider system in the constitution of which the "speech consciousness" would of course have a vastly preponderant influence, but in which the form of the pulse could not be without influence from these minor consciousnesses; and this is exactly the fact which has drawn our attention to the difficulties connected with the ordinary conception of the causal relation between neural and mental activities.

The psychic coincidents of the activities of the sympathetic nervous system and of the spinal ganglia do not ordinarily appear to affect our pre-eminent consciousness at all, but under certain conditions, to be discussed later on, they evidently do affect this pre-eminent consciousness. Under certain conditions we are conscious of our breathing and of the activities related to digestion and to the semi-reflex activities due to spinal ganglia stimulation. But in all such cases it is to be noted that, as we should expect, the "speech consciousness" retains the preponderant influence, and we are accustomed to think of the influence from these minor consciousnesses as increments to the pre-eminent

consciousness, rather than to think of the new connection as involving the formation of a new and temporary form of consciousness coincident with the formation of a new and temporary form of neural system, as is probably the case.

§ 22. There are two other points to be noted before we pass to other considerations. First it is evident under this conception that any consciousness is the whole mental pulse coincident with the whole pulse of activity of the neural system involved.

It is true of course that the activities of the central ganglia are most important in influencing the form of this nervous pulse, but so long as any part of the neural system remains within the system its activity must to some extent influence the form of the pulse; although it is possible of course to find elemental activities which are relatively of so little importance that their elimination would in no sense appreciably affect the form of the total neural pulse.

It appears then (if for convenience we limit ourselves to a consideration of the brain) that we must assume that the "brain consciousness" at any moment is the psychic pulse correspondent with the pulse of the whole neural system which is coincidently active: that the action of the terminal organs, and of the neural elements which connect these terminal organs with the cortex, and of the cortex itself, so long as they are all active and are connected, must all influence the conscious pulse of the moment, although of course the enormous relative importance of the activities in the cortex must make the mental coincidents of these activities of enormous relative importance in influencing the form of the conscious pulse.

It appears therefore that it is only because we take a view of consciousness in cross-section, if we may so speak, that we have come to look upon the cortex as the seat of

consciousness, and the terminal organs and the connecting elements as mere mechanical media for the stimulation of the cortex.

C—*o*

If **C** represent the activity of the cortex *without* the stimulus from the terminal organ; and if the diagram represent the activity when the stimulus from the terminal organ affects the form of the brain pulse; **C** representing the activity of the cortex, *o* the activity of the terminal organ, and the line connecting **C** and *o* the activity in the neural connection between the cortex and the terminal organ; then the diagram is intended to indicate that **C** is not made materially different from **C** by the existence of —*o*; and that it is natural that the only noticeable difference between the two pulses of consciousness should appear to be determined by the differences between **C** and **C**.

What is more, if at the moment just before the terminal organ is stimulated we have **C** only, at the next instant we shall have the whole neural pulse represented by **C** *o*, and only later the pulse represented by **C**—*o*; and this will change rapidly into the forms **C**—, and **C**, and finally back again into **C**.

It is easy then to see why we have come to consider only the differences between **C** and **C**, and have learned to believe that the total pulse of consciousness is only differentiated by changes in the cortex activity, losing all track of the exceedingly minute changes in the pulse which are determined by the activities of the terminal organs and of the connecting fibres, which minor changes do not affect the pulse of consciousness materially at any moment, and scarcely affect it at all at the moment when the change corresponding with actual activity in the cerebral hemispheres attracts our attention.

§ 23. The second point to which I would draw attention is this, that it is necessary to look upon the brain as a neural system indeed, but as one which is itself a complex of intimately connected minor neural systems; and we may assume therefore that the brain under certain conditions is capable of becoming temporarily split up, to use an expression of Professor James's, into relatively unrelated systems which at times may find their expressions correspondingly separated.

On the conscious side we find corroborations of this view in many pathological conditions. We note double consciousnesses which appear in the same person: in cases which are easily reproduced for experiment one consciousness in a man will read aloud from a book, without being disturbed by the fact that the other consciousness is writing from dictation whispered into the ear. These cases are generally most marked in men affected by hypnotic or other trance states, and appear in many forms in morbidly neurotic patients; but in less marked forms, if we will but note it, they appear in the perfectly normal lives of ourselves and of our companions.

A man may work intently with his eyes, say at drawing, and be entirely undisturbed by the fact that he is himself whistling a tune, which whistling exasperates beyond measure some fellow-man who is listening to a conversation, but who in turn is entirely undisturbed by the flash from some tremulous light, which itself is just as exasperating to the draughtsman as the whistling is to the listener. Here we seem to have incipient double consciousness, auditory on the one side, and ocular on the other.

But these double consciousnesses are merely extreme cases. As the brain is made up of multiple systems coordinated into a unit, so the pre-eminent consciousness must be assumed to be made up of multiple minor con-

sciousnesses correspondingly unified, which however may be at times split up into parts acting within the same body with diverse expressive action. The split-off parts are seldom of anything like equal importance, as they are in cases of double consciousness like those to which we have above referred. In ordinary cases the split-off parts are of minor importance, and the pre-eminent consciousness seems to be but slightly limited by the loss of what is split off.

In cases of so-called double consciousness the only evidence of the doubleness is objective, and attracts attention because of the extraordinary complication of the two sets of expressive actions involved, neither of which in ordinary experience can be carried on without vivid subjective experience. The subjective experience in the cases of double consciousness is most often as simple as usual: where the man reads from the book while writing from dictation whispered in his ear, what he recognises as his consciousness is limited for the most part to the reading; it may shift momentarily to the dictation and writing; but even where this shifting takes place he cannot properly be said to be conscious (as he usually employs this word) of the process of reading aloud, at the moment he is conscious of the dictation: one only of the two sets of activities can at one time be part of the pre-eminent consciousness.

And here it may be well to repeat that the evidence which leads to the general acceptance of the notion of double consciousness is objective evidence based upon the observation of diverse forms of expression; and it is important to note that if the argument from this evidence to the existence of the double consciousness is valid, then evidently the believer in double consciousness must agree to the existence of multiple consciousnesses within us corresponding with the multiplicity of minor systems co-ordinated in the brain: beyond that he must agree to

the existence of multiple consciousnesses coincident with the activity of those other neural systems within our body which are so far separated from the brain that their psychic coincidents seldom or never affect the pre-eminent consciousness; multiple consciousnesses coincident with the activity of those other neural systems which express their activities not in speech indeed, but which do express them nevertheless in motor reactions of well-recognised co-ordinated forms. The acknowledgment of the existence of double consciousness therefore corroborates fully the statements already made in reference to the existence of minor grades of consciousness in connection with the action of lower neural systems separated from the brain.

§ 24. The pre-eminent consciousness, of which psychology treats, thus appears as a stream which is separated into two channels at times, and which joins again into one stream; which at other times loses some of its content in lagoons and swamps by the way, and again on the other hand gains new masses of content from brooks and streams smaller than itself which at intervals empty into it. This conception derived from introspection corresponds with our notion of the action of the brain in relation to the subordinate neural systems of which we have just spoken, and which notion is derived from objective observation.

The pre-eminent consciousness for the most part, however, does not seem to divide, nor to lose or gain subordinate masses of content; for the most part the stream flows on, now turbulently, now smoothly, its practically level surfaces being marked with certain streaks and eddies. But if we examine this stream of consciousness at some special moment we find the surface of the stream broken up into wavelets, in and amidst which some higher wave appears and sweeps over the complex surface: we find that

the pulse of consciousness is made up of many elements, if we may so speak without being thought to mean separated elements in an atomistic sense; the mass of these elements on the one hand are unemphatic and appear to form an unanalysable whole, while on the other hand some of them are emphatic and stand out as increments, so to speak, to this unanalysable whole.

It is this unanalysable whole of which we speak as the *field of inattention* if we consider more than one moment of experience; or we call it the *ego* if we consider merely the moment's experience. Or as Professor James puts it (*Psychology*, vol. i. p. 301): "Our entire feeling of spiritual activity, or what commonly passes by that name, is really a feeling of bodily activities *whose exact nature is by most men overlooked.*"

The increment to this unanalysable whole we speak of ordinarily as the presentation to the ego¹ if we consider merely a moment's experience; if we consider more than the moment, we speak of the observed increments as the field of attention, which consists of such elements as make up our recognised sensations, emotions, thoughts, and acts of volition for instance.

The ego with which Psychology has to deal is clearly an unanalysable whole and part of consciousness; as it lies not within the field of attention, it must therefore lie within the field of inattention; nor can I find that there is anything in this feeling of egohood that is not in the field of inattention also, nor anything in this field of inattention which is not part and parcel of my egohood. The ego and

¹ This is a somewhat inaccurate use of language, for, as Dr. James Ward says: "Self then is one presentation among others, the result, like them, of the differentiation of the original continuum. But it is obvious that this presentation must be in existence first before other presentations can be related to it. On the other hand it is only in and by means of such relations that the conception of self is completed." — Article "Psychology," *Ency. Britannica*, p. 83.

the field of inattention therefore would seem to be one and the same thing, the differences in the application of the terms being determined merely by differences of point of view. The ego appears to be a persistent unity because it is a relatively permanent continuum, and an unanalysable whole to which, or rather out of which, the elements that give us the phenomena of attention appear to arise as increments.

Now this experience of ours corresponds completely with our conception of the action of the pre-eminent neural system, *i.e.* the brain. We must conceive of the physical action in the co-ordinated neural system, of which the brain forms the mass and centre, as a pulse of activity made up of many correlated subordinate activities. Most of these subordinate activities will be unemphatic, and will appear only as affecting the unanalysable whole, but some of them are likely to be emphatic and thus to stand out clearly from the mass. The emphasis of these special elements may be due, and to a great extent either directly or indirectly is due, to the stimulation of high activity in the organic parts which stretch out from the brain mass as terminal organs; but on the other hand this emphasis may also be due to the rise of activity in subordinate neural systems other than the brain system, which are ordinarily without influence upon the pulse of brain activity, but which under certain special conditions of activity influence the brain system.

§ 25. We are now prepared, I think, to consider the conditions which determine the splitting off from the brain, and again the attachment to the brain, of these subordinate systems; and those conditions which determine the splitting off into separate strata of the brain activity itself; and also the differentiations of consciousness coincident with this splitting off.

As we have already seen, we can as psychologists bring forward in direct evidence only the pre-eminent consciousness, only the psychic states coincident with the action of the brain. The pre-eminent consciousness we may indicate by the large letter C. Subordinate consciousnesses may be indicated by small *c*'s, which may be numbered to distinguish them from one another.

C then is apparently what it is because of the possible isolated existence of $c^1, c^2, c^3, c^4, c^5, \dots, c^n$.

Any *c* which is but lightly connected with the whole system may be cut off from C without materially altering the fulness of C; and this may be effected in the first place by a mere physical disconnection of the nerve tract which unites the brain with the subordinate neural system in question. Of this form of disconnection pathology and surgery present us with numerous examples, and the disappearance of such elements from the pre-eminent consciousness presents to our minds no difficulty.

If the neural system, of which the pulse of activity corresponds to the *c* in question, is in the mass of the brain, then this *c* may disappear from C at times as the result of the destruction of what we call the "associative fibres," in which case it may reappear when new fibres take the place of those destroyed. Or *c* may disappear as the result of destruction of the subordinate neural system, in which case this *c* does not itself reappear: in those rare cases of this latter type where the *c* does eventually seem to reappear, we must assume that some other neural system than the one extirpated has come to act approximately as the extirpated system did. This case presents also no special difficulty.

§ 26. But there appears to be another way in which there may be produced a discontinuity of the minor *c*'s in

relation to the whole C without destroying the continuity of either C itself or of the c 's themselves; and this without necessarily involving destruction of the neural connection existing between the systems.

The action of the pre-eminent consciousness C , or of any subordinate consciousness c , is to be conceived, as we have already seen, as a reverberant continuum. It seems not illegitimate, therefore, to picture these states as similar to such a physical reverberant continuum as the vibration of a string, or better to such an one as the pulsation of an air-wave.

The conscious activity may be spoken of in physical symbols as having (1) amplitude, and (2) time-rhythm.

This amplitude appears when we compare diverse states as to their relative intensity; this rhythm appears when we compare diverse states as to their relative excitement or non-excitement. In any one complex system C any one of the component systems $c^1, c^2, c^3, c^4, c^5, \dots, c^n$ may be supposed to vary in either amplitude, or in rhythm, or in both.

§ 27. If in the brain the amplitude of some subordinate system, say the neural system which gives us c^3 , is increased, then we have c^3 more or less drawn away by its mere emphasis from the mass of C ; and we have $c^1, c^2, \dots, c^4, c^5, \dots, c^n$ forming an unanalysable mass against which appears c^3 . This mass we have learned to call the field of inattention ($c^1, c^2, \dots, c^4, c^5, \dots, c^n$), standing opposed to the field of attention (c^3), and c^3 appears to us to be presented as an increment to the unanalysable mass $c^1, c^2, \dots, c^4, c^5, \dots, c^n$, which we call the ego.

As above described c^3 is conceived as a subordinate system within the grand system C , the corresponding neural system being a subordinate but inherent part of the brain. But some other c , say c^4 , may be one which is but lightly

connected with system C, such for instance as the consciousness co-ordinate with the action of a spinal ganglion, or of the sympathetic system. In this case we shall have a subordinate consciousness (c^4), which is usually merely a part of the unanalysable mass that we call the field of inattention or the ego, according as we take one point of view or another; but it is a consciousness which with increase of the amplitude of its action may, upon certain occasions, appear as an increment to this ego, as making up the field of attention.

Examples of this type of occasional rise into consciousness we have in the persistent attention given to the painful sensations accompanying derangements of the intestines, or accompanying the difficult breathing in a rarefied atmosphere; the intestinal sensations and those accompanying normal breathing being usually quite apart from this field of attention.

But it is to be noted that this increase of amplitude of c^3 or c^4 is always relative to the amplitude of the remaining elements forming C; and in the case of c^4 here considered, the rise into the field of attention may be due not to an increase of the amplitude of c^4 , but rather to a reduction of the amplitude of the elements c^1 , c^2 , c^3 , . . . , c^5 , . . . , c^n . Thus we find our normal breathing and heart-beat which is usually unconscious brought to our attention at moments of general reduction of activity, *e.g.* when we are about to fall asleep.

Now from what we know of neural action it is apparent that frequent recurrence of certain activities in one neural system which is a subordinate part of a wider neural system will, in the first place, determine specially intimate connections between the subordinate system and all the rest of the whole larger system; and will, in the second place,

through the establishment of nicely adjusted nutritive relations, reduce the disturbance of the whole system caused by the action of the subordinate system; will, in other words, increase the tendency to activity of the wider system as a whole, upon the recurrence of the activity in the subordinate system.

This we may express in correspondent psychic terms, by saying that in connection with the recurrence of the appearance of an activity c^3 as a presentation to the rest of C, there will gradually appear a reduction of the relative difference of amplitude between c^3 and c^1 , c^2 , . . . , c^4 , c^5 , . . . , c^n , and that finally c^3 will no longer appear as a presentation to the ego, as an element of attention, but will be lost in the analysable mass of the ego, will become part of the field of inattention, and will be called unconscious by those who identify consciousness with attention.

We have here then an explanation of the phenomena of loss of consciousness, so called, in connection with recurrent neural activity, the well-known phenomena of habit; which phenomena, as we have seen, although explained by the theory that neural action *produces* consciousness, are not explained by the opposed theory that mind *produces* the bodily activities. There is, strictly speaking, seldom a complete loss of consciousness even in the deepest sleep, rather is there a sinking of certain "elements" into the field of inattention, and a consequent loss of memory of them in the vivid consciousness of waking life.

§ 28. Now let us turn from this consideration of the phases of neural activity comparable to amplitude of vibration, to the study of those phases comparable to rhythm of vibration, referring again to our analogue in the physical world.

We recall that the pulses of air vibration affect us as

sound; that a complex aerial wave, formed by the coalescence of waves of commensurable rhythm, produces the conscious effect which we call a harmony; that if another air-wave appears which has a rhythm that is not commensurable with the rhythm of the complex wave, so far as the effect upon consciousness is concerned the two waves exist side by side as it were without coalescence; there are two sounds, the harmony is still there, and beside it a separate note. But if this new wave has a rhythm which *is* commensurable with the rhythm of the complex wave then there is coalescence, and so far as the effect upon consciousness is concerned there are no longer two sounds, but one harmonious sound still more complex than that which existed before the new wave effect was experienced.

Returning now to the consideration of multiple consciousnesses, let us attempt to express the general nature of the phenomena of which the above is a special example.

If the whole system C is acting within a certain rhythm, and if some elementary system c^3 within this whole C comes to act in another rhythm which is incommensurable with the rhythm appearing in C , then c^3 will be practically disconnected from the remainder of C , *i.e.* from c^1 , c^2 , . . . , c^4 , c^5 , . . . , c^n .

Incommensurability of rhythm of activity existing between the whole brain system and some subordinate system will thus account for the occasional disappearance from consciousness of elements which usually come into the field of attention. Such cases are typified in the well-known fact that in the intense excitement of battle the soldier may receive a wound of which he knows nothing until the excitement is past, when he discovers the injury by the excessive pain it occasions. Here a high rhythm in the rest of C excludes c^x , which cannot attain such a high

rhythm, although in ordinary cases it (c^2) would form part of the complete C in its normal rhythm.

In everyday life we have learned to exclude a disagreeable psychosis by producing in ourselves a state of consciousness of a new rhythm with which the rhythm of the disagreeable psychosis is incommensurable. To get rid of a moderate toothache we are wont to bite very hard on some substance, or press our teeth together with great force, so that we get an intense pressure sensation which determines the rhythm of the moment's consciousness and excludes the minor activity that is disagreeable. The phenomena which the "faith cure doctors" make so much of are of a similar nature. These "doctors" teach their patients to reduce the rhythm of the activities of the unhealthy parts, and they accomplish this by raising the intensity of mental phases which are exclusive of the phases with which the activities of these unhealthy parts are coincident; they merely exaggerate what we all do when we try to forget our ills by "thinking of something else." They thus make use of what we may call a sort of mental surgery, which at the same time involves rest from action in the neural parts which are out of order; and this rest, if persisted in, may result in the recuperation of these parts, provided the trouble is not of a serious nature. This seems to me to be the explanation of such real cures as are accomplished by the method of "suggestion."

This conception of connection through commensurability, and disconnection through incommensurability, will also account for the occasional appearance in the field of attention of certain elements which usually do not appear to affect consciousness at all; cases which are typified in the well-recognised fact that when general excitement is lacking, when we are depressed in body and spirit, when we are

awaking from sleep and are dreaming, then glandular and stomachic sensations affect the stream of consciousness which cannot possibly be made to affect it in the hours of active vigorous waking life. Here a subnormally low rhythm in C enables c^y , which cannot attain the normal rhythm of C, to become part and parcel of the whole of C now acting in a subnormal rhythm; enables it actually to affect C by its superior amplitude, so that it (c^y) appears as an increment to the ego, as part of the field of attention.

It is to be noted that c^x and c^y , as mentioned above, even when thus practically disconnected from the rest of C through the incommensurability of their rhythms, must still be assumed to be consciousnesses, but not consciousnesses which are able to affect the pre-eminent consciousness which thinks, and describes its conditions in speech and written word.

We have here then an explanation of the phenomena of the occasional loss of consciousness in connection with activities which are usually conscious, and also of the gain of consciousness in connection with activities which are usually unconscious; phenomena which we have seen above, although explained by the theory that mind *produces* neural action, are not explained by the opposed theory that neural action *produces* mental effects.

§ 29. We thus see that it is possible to state the hypothesis of parallelism in terms which enable us to account for the phenomena which appear to present insurmountable obstruction to the acceptance of both of the theories which are founded upon the usual view of the causal connection between mind and matter. Note final paragraphs in §§ 27 and 28. It seems to me, therefore, that it is proper to adopt the theory of parallelism as a

working hypothesis, using it, so far as it is available, as a means of unifying mental phenomena, until it can be shown to be invalid or inapplicable. I myself have not discovered any directions in which it fails of applicability, and, as will appear in the sequel, we shall find it very helpful in the comprehension of many mental phenomena which are not easily expressed in terms of the theories which it displaces.

§ 30. Before passing from this subject I think it may be well to speak briefly of certain objections raised by Professor James to the "Mind Stuff" theory to which the hypothesis here presented may seem to some to be closely allied. He examines a number of arguments in favour of this theory for the purpose of showing their weakness: these objections I wish now to take up in the order of his presentation, to show that they do not affect the hypothesis I support.

The first argument examined is the Leibnitzian one, which we may quote from Professor James in full (*Psychology*, vol. i. p. 164).

"The *minimum visible*, the *minimum audible*, are objects composed of parts. How can the whole affect the sense unless each part does? And yet each part does so without being separately sensible. Leibnitz calls the total consciousness an 'aperception,' the supposed insensible consciousness by the name of 'petites perceptions.'

'To judge of the latter,' he says, 'I am accustomed to use the example of the roaring of the sea with which one is assailed when near the shore. To hear this noise as one does, one must hear the parts which compose its totality, that is, the noise of each wave, . . . although this noise would not be noticed if its wave were alone. One must be affected a little by the movement of one wave, one must have some perception of each several noise, however small it be. Otherwise one would not hear that of 100,000 waves, for of 100,000 zeros one can never make a quantity.'

Professor James answers truly that this is "an excellent example of the so-called fallacy of division, or predicating what is true only of a collection, of each member of the

collection distributively." But it is to be noted that under the hypothesis here presented there is no dependence upon this fallacy of division. The pulse of the complex system, which makes up any moment of our highest consciousness, is not assumed to be made up by the summation of a lot of smaller pulses, although its form is necessarily determined by the form which these subordinate pulses would take were they not part of the system. If a subordinate neural element acts out of relation to a neural system, it involves the existence of a phase of mentality of a certain determinate character; but if it later on becomes part of a neural system, whilst its corresponding mentality influences the pulse of consciousness, in the very fact that it does so it cannot retain the determinate character which belongs to it as an isolated element.

The assumption of the "second proof" presented and controverted by Professor James is that "in acquired dexterities . . . we do what originally required a chain of perceptions and volitions. As the actions still keep their intelligent character, intelligence must still preside over their execution."

Under our hypothesis this apparent loss of intelligence may be due to the practical "splitting off" or disconnection of part of the conscious train as Professor James suggests, and his further suggestion that memory may have lapsed, is under our view but a case of this disconnection; but more often, under my view, this apparent loss of intelligence is due to the fact that the intelligent act becomes but part and parcel of the unanalysable mass of unemphatic consciousness which we call the field of inattention.

Professor James's third, fourth, and fifth "proofs" are to be similarly re-expressed; and the rest of them seem to me, as they seem to him, to be no proofs at all.

§ 31. As I have said in a preceding section of this chapter, it is difficult to consider the problem of the relation of mental to physical activities without being led afar into the dreamland of metaphysical suggestion, with which as psychologists we should have nothing to do.

If we assume the existence of a psychic somewhat, of "mentality," as corresponding to elemental neural action, why should we not also assume the existence of some form of "mentality" corresponding to each and every other form of what we call the transfer of energy?

If we assume that the special form of mentality which we call consciousness is determined by the existence of the reverberant continua which we call neural systems, why should we not also assume the existence of other forms of consciousness as being necessarily coincident with the existence of other similar forms of reverberant continua in the physical world?

May we not assume that something mental akin to a consciousness is coincident with the vibration of the string of a violin, with the pulsation which determines a musical note or a musical harmony; may we not suggest even, as Fechner and others have, that types of consciousness nobler than our own may be coincident with the grander continua which we recognise in the solar system, and in the broader universe of which this solar system is but an element?

Beyond this, if we assume that our own pre-eminent consciousness is what it is because of the union in one system of what, but for this union, would have been inferior consciousnesses, why should we not also assume that our own pre-eminent consciousness may under certain conditions become attached to other consciousnesses, and together with them form a still higher type of consciousness? One of such consciousnesses might be determined by the co-ordination of many human consciousnesses, might be a "social consciousness."

If such higher consciousnesses exist, then my own consciousness when joining with others in the formation of a consciousness of more complex type, while retaining its own general qualities, must be assumed to be modified in the fact that it becomes part of the higher consciousness.

We should not expect to gain any direct, definitely unique, experience as the result of becoming part of such a higher consciousness: we should not expect to be able to "know" this higher consciousness of which our pre-eminent consciousnesses are elementary parts, any more than we should expect the subordinate consciousnesses which go to make our pre-eminent consciousness to "know" our whole pre-eminent consciousness: we do not think of a sensational experience as knowing anything of the state of the pre-eminent "brain consciousness" to which it belongs as a part.

But on the other hand the subordinate consciousness, as part of a pre-eminent consciousness, must have a "feel" different from that which it would have were it isolated or temporarily disconnected therefrom; and we might expect to experience a difference of "feel" where our pre-eminent consciousness becomes part of a higher system, and a further difference of "feel" when this bond is dissolved.

The change of experience which we note when in a great assemblage of enthusiastic people whose minds were turned in one direction, seems to be the nearest approach we can think of to the grasp by the individual consciousness of a social consciousness, if such can be supposed to exist. Such a change of my experience may not impossibly be due to this subsumption for the time of my limited egohood in, and as part of, a higher egohood. Who has not felt this influence, which may have much to do with the power of revivalist assemblages, of "Christian Endeavour" congresses, of political conventions.

Moreover, we are not without indications at times of the

subsumption of our egohoods within still broader egohoods than those of a social nature. We often feel that we are swayed by some far-reaching but ill-defined influence of this nature, the effects of which we experience principally negatively when we break away from it. One might indeed carry this speculation much further than would be appropriate in a work like this, but I shall refrain, contenting myself with quoting certain lines from Lowell's poem "Under the Willows," where he, with a true poet's insight, has expressed most beautifully the experience to which I refer.

My soul was lost,
Gone from me like an ache, and what remained
Became a part of the universal joy.
My soul went forth, and, mingling with the tree,
Danced in the leaves ; or, floating in the cloud,
Saw its white double in the stream below ;
Or else, sublimed to purer ecstasy,
Dilated in the broad blue over all.
I was the wind that dappled the lush grass,
The tide that crept with coolness to its roots,
The thin-winged swallow skating on the air ;
The life that gladdened everything was mine.

Was I then truly all that I beheld ?
Or is this stream of being but a glass
Where the mind sees its visionary self,
As, when the kingfisher flits o'er his bay,
Across the river's hollow heaven below
His picture flits,—another, yet the same ?

But suddenly the sound of human voice
Or footfall, like the drop a chemist pours,
Doth in opacious cloud precipitate
The consciousness that seemed but now dissolved
Into an essence rarer than its own,
And I am narrowed to myself once more.

CHAPTER III

GENERAL DEFINITIONS

As the title of this chapter indicates, I do not intend here to do more than make clear to the reader the general subject of our study. In later chapters (notably Chapters IV. and XVI.) I shall attempt to define in a more accurate and scientific manner the several subjects of discussion.

§ 1. Instincts are forces within us which are organic, which appear in us because we are organisms; which lead us to undertake, without forethought, actions of a very complex nature involving the movement of many parts of the body in relations which are more or less fixed, actions which, as the biologists say, are more or less thoroughly co-ordinated.

One would say, for instance, that I act instinctively when I suddenly raise my hand and arm to ward off the blow from a ball which some boy has inadvertently thrown towards me in the ardour of his play. The action in this case involves most complicated muscular adjustments, and is determined by nervous changes of a very intricate kind; and yet this action takes place automatically as we say: I may feel it as it goes on, or I may feel its effects, but I do not have to consider how it will be best for me to act under the circumstances; in fact, if I had to enter into such consideration, I should be unable to devise the proper means of protection in time to save my head.

Such actions as these have significance for our welfare as organic beings ; they guide us, for instance, in the search for food, in efforts towards self-protection, and they enable us to gain many advantages of wider significance which are to be studied in detail later on. But it must be noted that they are not dependent in any degree upon our appreciation of the advantages they bring to us : they are called into action without our will, and in many cases cannot be restrained by our will. I do not realise, for instance, as I throw up my arm, that my skull is in danger of being cracked if that ball hits it ; I do not throw up my arm because I consciously desire to avoid the blow ; in fact if I know the ball cannot reach me, because its flight is limited by being attached to a string held by the boy, I still am likely to throw up my arm unless I make a powerful effort not to do so.

In common speech all organised actions, similar to those above described, which take place without forethought are wont to be called instinctive ; but even common sense observes one distinction which we shall see later on to be a most important one. We all note that some actions which are deliberately undertaken at the first, if often repeated, gradually take on the qualities of instinct actions : we gain what we call *habits* of action which lead us to act automatically, without forethought, in very complex ways. The pianist, for instance, *learns* to play, the bicycle rider *learns* to balance himself ; but finally the muscular and neural adjustments involved in the playing and the riding become quite automatic : it becomes difficult for the pianist to play the wrong notes when the proper scale is placed before his eye, actually difficult for the bicyclist to lose his balance when obstacles do not too suddenly appear before him.

Now although the existence of habit is commonly noted, the distinction between habit and instinct is not made

much of by common folk ; but it is necessary to bear it in mind. Habits may be called *pseudo*-instincts, and this draws our attention to the fact that the true instincts are not learned, that they are born in us, that they are inherited from our ancestors with the bodily structure which is given to us.

The importance of this distinction at once becomes evident when we perceive, as we do as soon as we study the subject with care, that the true instincts have been acquired by our race because in the long run they have been, as they in general still are, valuable to life under the conditions which normally arouse them. Had not blows upon the skull been destructive of life, and protection from such blows advantageous to those animals from which we have descended, our ancestors who gained habits of protecting the skull by throwing up the arm would not have won in the struggle for life, whilst those of their kind who did not act thus were destroyed without leaving descendants.¹

The consideration of Instincts then, from a developmental standpoint, shows that they lead us to act as our ancestors have acted under conditions similar to those by which we are surrounded.

§ 2. Reason, as we usually use the term, is, on the other hand, that which leads us to adapt ourselves to new conditions, to guide and change the actions which are determined by instinct, and is what we may call the variant factor in psychic life. The word "reason" is thus used in a broad way to cover much that is usually spoken of as intelligence ; a usage which I explain in the more technical chapters to follow.

We discover, if I may use again the same example, that

¹ I purposely omit here all reference to the complications caused by the effects of experience upon innate Instinct. See Chapter IV.

the flight of the boy's ball is restricted by the string; we reason that it is absurd to jump and throw up our hands each time he throws it at us, for it cannot reach us, and cannot hurt us. Although at first we may not be able to control our instinctive response, we finally gain ability to control our action, although this can usually be done only by indirect process, by not noticing the boy and his ball, or, in other words, by turning our attention in some other direction.

§ 3. Instinct is thus seen to be a force within us which tends to make us act under certain conditions as all others act who are of the same organic type, which leads us to undertake typical reactions. Reason, on the other hand, appears as the force which tends to make us vary from such typical actions. The meanings I attach to these terms I believe are thus made clear, and I think the reader will find no difficulty in understanding my usage in the succeeding chapters.

§ 4. Perhaps this distinction may be made clearer, however, by looking at the subject from a different point of view. Let us turn to the study of the very beginnings of that animal life which is to occupy our thought to so large an extent in the pages that follow, starting with a somewhat vague, hypothetical consideration. Let us commence by making only the smallest of assumptions, by taking for granted nothing more than the existence of the very simplest possible forms of living matter capable of growth, and supposing them placed in an environment that furnishes the nourishment upon the assimilation of which this growth depends.

With such living matter, under such conditions, I believe it will be granted that it is necessary to assume a tendency

to what is called "fission" in the living mass, or in other words necessary to postulate the breaking up of the living mass as it grows; for, as Prof. C. Lloyd Morgan¹ has happily expressed it, in such masses "volume tends to outrun surface. But in the organic cell the nutritive material and oxygen are absorbed at the surface, while the explosive changes occur throughout its mass. Increase of size, therefore, cannot be carried beyond certain limits, for the relatively diminished surface is unable to supply the relatively augmented mass with material for elaboration into unstable compounds. Hence the cell divides to afford the same mass increased surface. This process of cell-division is called fission, and in some cases cleavage."

That such fission or cleavage does take place in low grades of living matter is well recognised by all those who use the microscope. But if we once assume that this fission or cleavage takes place, it is evident that in general the new masses will, after the fission, at first be placed contiguous to one another, and as the process of division continues that they will, unless disturbed, tend to form a group which we may call an aggregate. Furthermore, if the process continue indefinitely, it seems to me to be apparent that, unless forces in the environment sweep the newly-formed elements apart, we shall soon have an aggregate in which some of the living cells are prevented from absorbing nourishment by the mere fact that they are entirely surrounded by their fellow-cells, and thus cut off from contact with the environment which contains this nourishment.

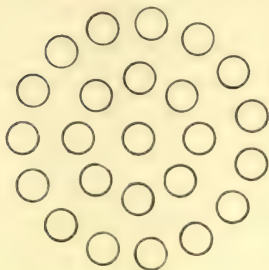
It would clearly be of advantage to these simple living forms if this difficulty could be overcome, and the most

¹ *Animal Life and Intelligence*, p. 37. Prof. Morgan thinks this should be known as "Spencer's Law," as Mr. Herbert Spencer first clearly enunciated it.

effective variation in this respect would be found if the new cells, as they were formed, developed a tendency to separate themselves from the parent cell. As a matter of fact in very low forms of life we find what the biologist calls "cilia"; minute, and more or less active, prolongations of the cell substance which must tend to bring about separation between the cells. The microscope, indeed, shows us still more simple forms, so low in the scale of life that we often scarcely know whether to call them animal or vegetable, which have this power of separating themselves from their fellows, through the agency of no discoverable cilia, but through processes which we fail entirely to comprehend.

But we must not stop to consider these low forms of life too closely, fascinating as such study might be, for our interest in them here is merely in relation to their survival after they have come into existence through the division of the parent cells. What is of more interest to us is the recognition of the fact that in quite another way the newborn cells, necessarily tending to form aggregates as the result of fission, may accommodate themselves to their environment, even if they fail in the attainment of mutually repulsive capacities. For this accommodation may be accomplished by the acquisition of certain differentiations in functioning, so that the cells of the surface of the aggregate, and those that are shielded directly from contact with the nutritive environment, will tend to react differently, and in such manner as will result in a transfer of the nutriment from the environment to those cells that are placed distant from the surface.

§ 5. Let us turn our attention to the simplest possible forms of such aggregation of which we can conceive.



For the purpose of illustration let us take the above diagram to represent a cross-section of such a simple aggregate which may be supposed to be approximately spherical in form. We may suppose, then, that any change in any one cell of such an aggregate will tend to bring about some alteration in the cells adjacent to it; and on the other hand that these latter will react to modify the action in the cell first changed; thus the action in the cell first affected will not be the same as would have resulted had this cell not been contiguous to the other cells.

If, then, a disturbance of any kind whatever from the environment reach one of the outer cells of such an aggregate, this cell will tend *primarily* to react upon the disturbing force from the environment as though it were an isolated cell; and, *secondarily*, this action will be modified, or repressed, or, as the biologist says, inhibited more or less fully, by the influence of the other cells of the aggregate.

Thus in the very beginnings of the life of cell aggregation, we have two influences at work; *first*, the *elemental variant influence* which would lead any cell to act for itself alone, to become accommodated more or less perfectly to a stimulus from without itself without reference to the effect of such accommodation upon the aggregate as a whole: and we have, *second*, the *modifying influence from the aggregate*, of which the stimulated cell is an element. It is to be

especially noted that this influence from the aggregate will come into play *later* than the elemental variant influence.

The reader will, of course, realise that these influences which seem so diverse, as we view complex organisms objectively, are in fact both but aspects of that which appears to us as the basic tendency to the persistence of life; they appear in opposition, because of the fact, which will become more clear in the sequel, that the tendency to aim towards the persistence of life is fundamentally *elemental*, and only secondarily relates to more or less integrated aggregates of elements. But it is with these aggregates of more or less complex organic form that biology has to deal, and I believe that I shall not be misunderstood if, for the sake of brevity, I often refer to those divergent tendencies as we actually note them, without reiterated reference to their basic unity.

§ 6. It is to be observed that it is highly probable that where a stimulus from the environment reaches such an aggregate as we are considering, and where it acts powerfully upon the superficial cells, then they will tend to react in answer as though they were isolated cells, reacting thus because no sufficient time can elapse, between the reception of the stimulus and the reaction, to permit the influence from the aggregate to come into play.

Again, if we suppose the superficial cells which are stimulated to be more or less separated from the mass of cells forming the aggregate; then, again, even though the stimulus from the environment be not very forceful, we should expect to find these cells that receive the stimulus reacting as though they were isolated cells rather than as elements of an aggregate.

But, on the other hand, if the environmental stimulus demand less forceful and immediate reaction in the cells

directly stimulated, or if this reaction to the stimulus be delayed in any way, then the influence from the aggregate will be likely to be pronounced.

And yet it is very clear that if the action of these aggregates is to be effective for their own persistence as aggregates, then the tendencies to elemental variant action in the component cells must on the whole be subordinated to their action as parts of the aggregate. For it is not easy to understand why there should be persistence of such aggregations of differently acting cell units, unless the cells which form the aggregates are at least as well adapted to meet the exigencies of their environment in the form of aggregates, as they would be if they were separated one from another; and it is quite impossible to understand how there could occur any increase in complexity, and any marked differentiation of functioning in the cells thus brought together, unless we suppose that they are better adapted to their environment in the form of an aggregate than they would be if they undertook separate existences.

We therefore find ourselves compelled to admit the great probability that in these aggregates advantage in the persistence of cell life is the basis of such increase as we find in complexity, in closeness of relations between the parts, and in division of labour of the several parts through differences in functioning; the cells acting severally, yet always as parts of an aggregate, and in general under normal conditions keeping their tendencies to elemental variation in subordination.

§ 7. Now let us turn to the consideration of forms of life a little more complex; and at the start let me ask the reader to note again that the beginnings of the divergencies of functioning, which become of so great importance in all higher life, are involved with the very differences of

action that occur in the outer cells and in the inner cells of the simple aggregates we have been studying; differences due to the fact that the stimuli from the environment directly affect the outer cells only, the inner cells being called into action in answer to stimuli received from the outer cells which alone are directly stimulated by environmental changes.

Now evidently such aggregates as we are considering cannot hold together unless the relation of the activities in the cells is more or less definite; unless these activities are more or less "integrated," as the evolutionist is accustomed to say; unless the cells depend upon one another.

So soon as the difference of functioning becomes marked, the aggregate becoming complex in its nature and the interdependence or integration between its elements gaining in definiteness, then we no longer have mere aggregates, but we have what we usually call organisms.

In these organisms, from the very fact that their cell units are more or less dependent upon one another, each influence from the environment upon one cell will necessarily become more or less effective upon each and all of the cells of the organic whole; and the closer the relation between the elemental parts of the organism the more marked will this width of effect become. At the same time, *pari passu* with the growth in complexity and in integration of the several elements, the secondary influence upon any one cell from the mass of the other cells of the organism will evidently become more and more complex, and hence, with scarcely a doubt, in many cases less immediately effective.

Here again, as with the simplest aggregates above spoken of, we see that when a stimulus from the environment reaches the organism, affecting directly, as it does, only the superficial parts of the organism, if it be very powerful, these superficial parts are likely to react as though they

had no relations to the organism as a whole; for in such cases we may suppose that the time that elapses between the reception of the stimulus and the reaction is insufficient to permit the influence from the organism as a whole to come into play. And we also see that any weakness of integration, any failure of the bond between the parts, will result in a tendency to the occurrence of this reaction of the stimulated parts as though they had no relation to the organism at large, even if the force to which they are called upon to react be not especially forceful.

But on the other hand if the stimulus which reaches the superficial parts of the organism be one that demands no forceful nor immediate reaction in the stimulated part, or if this reaction be delayed in any way, then the influence from the aggregate is likely to be effective.

On the whole we see that in all cases the superficial part will tend *primarily* to react upon the stimulus from without as though this superficial part existed independent of the organism; and only *secondarily* will its action be modified by the influences from the organism as a whole. Here again we see the same two influences at work: *first*, the elemental variant influence, and *second* the modifying influence from the organism; this latter influence coming into play later than the former.

In what follows I think it will appear that these characteristics are observable in all the developments of animal life.

§ 8. It must be granted, I think, that organic wholes would not persist, and increase in complexity and in inter-relation or integration, unless the cells, or the cell aggregates which form their differentiated parts, had, as parts of the general organism, some advantage that they would not have if they existed as separate cells or separate differentiated

parts. Or to put the matter in other words, the very existence of these organic forms shows clearly that, under the stress of conflict, certain types of cells, or parts formed of aggregated cells, run the best chance of survival, provided they subordinate their tendency to immediate reaction as individual cells, or individual parts, to the tendency to react as inherent parts of the whole organism of which they are elements; this being the case because the organism is better adapted to accommodate itself to environmental conditions (with incidental protection to its elemental cells or cell parts) than any of the elemental cells, or parts formed of aggregated cells, would themselves be if they acted merely as elements. As we have said above, there is no other easily conceived basis upon which the development of these organic aggregations can be accounted for.

And if this be so, then it seems very clear that if the action in these organisms is to be effective the tendencies to elemental variant action in the parts of the organism must in the main be subordinated to their action as parts of the organism as a whole, where conditions of stimulation tend to stability.

This last point I would impress upon the reader's attention, for as he will discover later it is of importance to our argument.

§ 9. I think we shall find ourselves convinced in the course of the chapters that are to follow; *first*, that the activities that are determined by influences from the organism, leading us to act for the benefit of the organism, are what we know in the higher forms of life as instinctive actions; these as we find them being more or less modified by experience: and *second* that the actions determined by the elemental variant influences are those that we know in the

higher forms of life as actions which are determined by more or less developed forms of reason.

Speaking broadly we may say that we call those actions in our fellow man instinctive which we know we perform as well as he, but which are carried on by us without conscious initiation on our part, without effort, without volition, without thought of end to be reached, or purpose to be attained, and which have not been learned by us during our life experience; actions which occur in him and in us because we are organisms; actions which are in part conscious but in no case the result of rational foresight or of act of will. We extend the term to describe the actions of the dumb animal friends who surround us and who act in many respects as we do, and then to the lower orders of animals with which we are familiar.

In a similar manner we call those actions in our fellow man intelligent,¹ determined by reason, which we perform as well as he, but always, or usually, after some form of conscious reasoning process and of choice. We extend this descriptive terminology again to indicate certain of the actions of the higher animals which surround us and which act in many cases as we do; and then we are compelled by parity of reasoning to extend it further to the lower animals.

The intelligent activities we set over against the instinctive ones because we realise that our instincts often call upon us to act in ways which we, at the moment, perceive to be lacking in intelligence; or in ways which, after the fact, seem to us to have been utterly irrational; and because we realise that it is by means of reasoned activities that we are wont to oppose those activities that are natural to us in the fact that we are organisms. We act intelligently when we would override and vary the actions to which we are naturally led by our organic instincts. As we shall eventu-

¹ Of the more accurate use of this word I speak below.

ally see there is a very close relation between Instinct and Reason, but upon this we cannot enlarge here: for notwithstanding this fact the broad distinction above made is perfectly clear.

When we deal with animals which cannot tell us of their mental states there is not a little difficulty in assigning the boundaries of instinct actions as exclusive of actions determined by will and foresight, a difficulty which gave rise in times past to the Cartesian notion that animal activities of all sorts and kinds are automatic and unconscious. We, however, have a way of judging whether the actions of our fellow men are instinctive or reasoned out, even when they do not tell us their mental experiences: viz. by noting the evidences of choice which are present when they act deliberately and rationally, and which are lacking when they act instinctively and non-rationally. The signs of choice are also found in the lower animals, and in like manner should lead us to judge that processes of reasoning and will-effort, in germ at least, are present with them, and that these actions of theirs that are thus the outcome of rational or volitional acts are not to be counted as instinctive. But on the other hand those actions of theirs that are performed without any evidence of choice we may, roughly speaking, consider to be instinctive, and only conscious in the limited manner in which our own instinctive actions are conscious. Of the connection between reason and choice I shall speak more at length later on.

§ 10. I of course cannot claim that this brief treatment has justified the statement, made in the beginning of section 9, that instinct actions are determined by organic influences that lead to typical actions of significance for the organism, and that reasoned actions are determined by influences leading us to vary from these typical forms in the

manner above described. A large part of this book will indeed be devoted to a detailed consideration of these points, and to the justification of the statement thus made. I hope, however, that the position thus taken, if not acquiesced in from the start, will be found acceptable after we have traced the development of those acts which we know in ourselves as instinctive, and those that we consider to be rational, from their beginnings in the lower forms of life that surround us.

The reader will realise at all events that when I use the term *instinct actions* in what follows I shall mean to indicate those activities which are thus determined by influences from within the organism, and that when I use the term *elemental variant actions* I shall mean to indicate the reaction of a part of the organic whole, for itself as though it stood apart from the whole, in answer to changes in its environment; and my meaning will be clear, I think, whether he agree or disagree with me as to the propriety of the terminology, or even if he disagree with me in relation to the theses which I defend in what follows.

PART II
CONCERNING INSTINCT

CHAPTER IV

THE NATURE OF INSTINCT

§ 1. IN Chapter III. I have endeavoured to make clear the general nature of Instinct and of Reason ; I shall now attempt by some special arguments to justify the position thus taken in reference to Instinct, and to mark the breadth of the application of the term.

It seems to me that the word Instinct should properly be used in an objective sense, and in an objective sense only. It is not infrequently used, to be sure, with subjective connotation, but I think the tendency amongst the clearest thinkers is to avoid such usage. Darwin, for instance, always employed the word to describe certain actions in animals and men as viewed objectively.¹ I find it difficult indeed to see how the word "instinct" can be used, even in speaking of one's own actions, except in an objective sense to give a name to the capacity which determines certain trends of activity, as they appear after the fact. At all events I shall use the word instinct objectively ; but in order to avoid any difficulties connected with this word I shall as far as possible employ a special terminology which I

¹ Professor Lloyd Morgan has indeed not long since defined Instinct as "the congenital *psychological* impulse concerned in instinctive activities," which might lead one to believe that he intends to give a subjective connotation to the word ; but he writes to me that he is now disposed "to drop 'instinct' as a term for the subjective aspect" altogether ; and this is in harmony with his usage in his latest book, *Habit and Instinct*. Cf. also *Nature*, 22nd August 1895.

believe cannot be misunderstood. I shall use the compound word "*instinct actions*" to describe the actions involved in the expression of Instinct; and this term I shall intend to employ only in an objective sense.

But clearly, if to describe the "organised trains of co-ordinated activities" which are the expression of instinct, we thus use a special term which does not involve any recognition of the psychic coincident of these actions, then we are in need of a correspondent term to describe this psychic coincident of these co-ordinated activities; and accordingly I employ the term "*instinct feelings*" to describe the consciousness coincident with the instinct actions:¹ this term, as is evident, I use in a subjective sense.

So far then as I employ the word "instinct" I use it as above explained in an objective sense to refer to any capacity in an animal which enables it to perform, without learning by experience during life, certain "organised trains or sequences of co-ordinated activities in common with all the members of the same more or less restricted group in adaptation to certain circumstances oft recurring or essential to the continuance of the species." The words in quotation marks are from Professor Lloyd Morgan's *Animal Life and Intelligence*.

But I shall use the word "instinct" in a much wider sense than that in which Professor Morgan employs it. It seems to me that we are logically compelled to extend the meaning of the term to cover certain manifestations of activities that are of very wide reach, that have not attracted any great amount of study from biologists, and that therefore have not been commonly identified with the instincts in general: for instincts are usually studied by biologists in

¹ Cf. my *Pain, Pleasure, and Æsthetics*, p. 69. The word "feeling" is here not equivalent to pleasure-pain, but is used in its widest sense as employed by Hodgson, James, Spencer, and others.

those forms where the expressive action is relatively definite and fixed in character.¹

I am upheld in my position by the usage not only of ordinary men but also of a large number of writers upon biology and psychology, and notably by that employed by Darwin. A serious attempt has lately been made, however, by Professor Morgan to restrict the meaning of the term in a manner which must be considered.

§ 2. If the reader will note the quotation from Professor Morgan just made, he will agree, I think, that one marked characteristic of instinct actions is this, that they tend towards some more or less definite biological end. As a matter of fact this seems like stating a truism, for we recognise the biological end in connection with the most prominent of the co-ordinated actions which we call instinct actions, and I think we must hold that all series of actions which are congenital, which are determined by the constitution of the organism, and which appear, to subserve definite biological ends, must be classed together as Instincts.

It is thus that I am accustomed to employ the word Instinct. But to this usage Professor Morgan objects.² He holds in opposition to my extension of the term that biologists "have grown accustomed to the application of the term instinct to the manifestation of particular activities"; and he says, "The term instinctive should in my judgment be applied to those activities which are congenital, and which are also relatively definite."

To the limitation of the word Instinct to those activities which are congenital, *i.e.* which are not acquired during life, I, of course, agree in a general way, if we follow Professor

¹ Cf. my note in *Nature* for 6th June 1895.

² See article in *Nature* above referred to.

Morgan in adopting a subsidiary classification of instincts which are "connate," *i.e.* those which are perfectly formed at birth; and "deferred," *i.e.* those which appear only some time after birth, of which we have a notable example in the sexual instincts. As we examine the higher forms of instinct in what follows we shall find that the nature of the instincts which we call deferred instincts, which do not arise until some time after birth, is more or less obscured by the fact that during the experiences of life animals gain habits which alter instinctive reactions, or which themselves become almost as thoroughly co-ordinated as instincts of congenital type. I do not wish to minimise this difficulty of observation, but I shall endeavour to show in all the complex cases treated that however much the instincts referred to are affected by life experience, and by imitation, they are still determined by congenital capacities, although these are in some cases deferred in their appearance until long after birth.

But this limitation itself cannot be accepted without a further explanation; for, as we shall see later (Part IV.), the modifications of a given instinct, the acquirements during life, are themselves due to the influence of instincts of another and simpler order than that which is modified, these simpler instincts being brought into action by stimuli which are better fitted to call out these modifying instincts than they are to call out the instinct which is modified.

We make a much more correct statement, I think, if we say that activities are due to Instinct when they are the result of certain co-ordinations which are inherited with an animal's neural structure, and which (we may add), in the nature of that inherited neural co-ordination, tend in general to subserve some biological end which has been of advantage to its ancestors; and that so far as co-ordinated activities tending to advantage to organic forms of a certain order have been acquired during life, they cannot be said to

be due to instincts of this same order; nevertheless these acquisitions must themselves be dependent upon the existence of, and upon the co-ordinate action of, instincts of another order.

Thus, as Professor Morgan shows, the swallowing of water by the thirsty chick is instinctive as soon as it gets its bill into the water, but the putting of its bill into the water is not instinctive *from the same point of view*, for it has to be taught to peck at the water by imitation of its mother. Nevertheless the process of imitation is itself instinctive; the action of pecking is learned because the little chick has inherited with its structure the tendency to follow the lead of the mother hen. Thus it will be seen that the acquisition through experience of this habit, which is not due to an instinct of a certain order determined by the existence of an organic type of a high degree of intricacy, is, nevertheless, dependent upon the appearance in the chick of instinct actions of another order determined by the existence of a less complex organic form, of a co-ordination of a lower order which is inherited with its normal structure.

This simple example will be found in what follows to be typical of accommodative action in general, accommodative action which determines the modifications of inherited instincts, or of the more or less complex habits acquired during life; modifications indeed of instincts, and acquired habits, which bear relation to biological ends of one order, although, in fact, they are determined by the combination of, and co-ordination of, instincts which serve biological ends of a different order. The full bearing of this explanation will appear later when we consider more in detail the nature of variation and accommodative modification.

§ 3. If we turn, then, to the question of the definiteness

of the reaction, we note at once that while Professor Morgan lays stress upon this fixedness of reaction in instincts, he is, nevertheless, compelled to acknowledge, as he does in the use of the phrase "*relatively* definite,"¹ that this fixedness is variable: it seems to me that this variableness is so wide that definiteness of reaction cannot for a moment be used as a differentia in relation to instinct without narrowing our conception of the bounds of instinct in a manner to be deplored.

It appears that, apart from their congenital nature, instinct actions as *objectively* viewed by the biologist are determined first by their organisation, but especially by some biological end which this organisation subserves. When we consider them *subjectively* we add the differentia that they are automatic, *i.e.* that the organised actions take place without our will, whether we recognise the end to be subserved, or whether we do not, and in most cases we do not.

If this be true, then the definiteness and the fixity of the actions is of very secondary moment, that which is important being the fact that there exists a biological end which determines the trend of these organised activities.

This is made more clear, I think, if we study the instincts with the object of noting how variable are the actions involved in their expression.

It is true that we usually take as examples of the typical instincts those which express themselves in what seem to us to be practically invariable actions occurring in definitely co-ordinated relation to one another, so that the actions appear to be always the same, and to be aroused always by the same stimuli. As an instance of such an instinct we may take Professor Morgan's happy example of

¹ He uses the words "a certain amount of definiteness" in his latest book, *Habit and Instinct*, cf. pp. 16, 17.

the instinctive reactions in the chick in connection with drinking, above referred to.

Here, as his experiments show, there is no tendency to look for water; the thirsty little birds apparently have no conception of the basis of their discomfort; they will walk through water without any effort to drink unless they happen to perform the very definite act of pecking at the water, when at once the instinctive explosion takes place, they perform the seemingly definite actions resulting in the throwing up of their heads, and they drink.

But if we study this very case with care we see at once that of the chicks in a brood no two are likely to strike the water with the bill under conditions which will produce exactly the same relations of stimulation, and therefore with each of the chicks the co-ordination of complex actions which result in the drinking must be different, although in ways that are with difficulty observable.

It appears, then, that the fixity of reaction is an ideal to which instinct actions indeed tend, but which we may assume is seldom, if ever, quite reached, and which when reached give us what we usually speak of as reflex actions.¹

But if the instinct actions themselves are only relatively definite, the biological end to be attained is much more fixed; and this fact in connection with organisation is, in my view, the *objective* mark of an instinct, to which, as I say above, must be added, on the *subjective* side, absence of any influence produced by conception of this end.

It seems to me that there are many of the lower types of instinct which show very clearly that their efficiency depends not upon any set of actions which can be spoken of as even relatively definite, but rather upon the trend of the activities they induce, even if the circumstances of stimula-

¹ Cf. below, § 5.

tion vary; or even if the stimuli themselves, and consequently the reactions to the stimuli, differ to a certain degree. The young chick after being taught to peck may, I think, without question be held to show an instinctive tendency to search for food, but it expresses this instinct by turning this way and that, by jumping back or rushing forward, by grasping much that it cannot digest, in the effort to gain what will serve as nourishment; the general end being reached, as the reader will perceive, through widely varying co-ordinations of actions.

And when we turn to a study of instincts of slightly more complex form, our point is much more clearly seen. The actions connected with preparation for self-defence, those connected with protection of the young, with nest-building, with migration, etc., these actions are surely to be classed as instinctive;¹ and yet they are exceedingly variable and unpredictable in detail; all that we can predict is the general trend of the varying actions which result from varying stimuli under varying conditions, and which function to some determinate biological end.

Clearer still does this become when we study the higher instincts, those, for instance, which relate to the foundation of the family in the human animal, instincts which express themselves indirectly through many activities tending to the accumulation of food or property by the man, and to protective care of the young by the woman. But if definiteness or relative fixedness of the activities involved were the mark of an instinct, as those who object to my usage would hold, then these actions that we have just mentioned could not be called instinctive. Yet who will agree to such a position; who will abandon the application of the term to the activities connected with fatherhood and motherhood; who will object to speaking of the paternal and maternal instincts?

¹ Cf. Morgan's *Habit and Instinct*, chap. xi.

The point that I especially wish to note, however, is this: that if I am right in the contention thus made, then there are certain series of activities of a most complex nature which we must also speak of as instinctive; namely, those series of actions which through many complications, and without influence from any recognition of the biological ends they subserve, lead to the protection of the weak; to the prevention of tyranny and violence through opposition to murder, theft, lying, adultery; to the strengthening of social bonds; and to the emphasis of social consolidation. We are thus brought to see that we are warranted in speaking of the ethical instincts, of the patriotic instincts, of the benevolent instincts, and of the artistic instincts.

It is indeed true that instincts of great complexity and of the "deferred" type, which do not appear until long after birth, are difficult to separate from individually acquired habits, which grow up with them, and in many cases become attached to them. Nevertheless we are, I think, warranted in assuming that true instincts exist when the activities noted are very widely distributed, and have long existed in the race, and when they have obvious relation to some advantage which is of biological moment to the race in which the activities appear.

§ 4. Professor Morgan has suggested¹ that it would be proper to use the term "impulse" rather than "instinct" in description of these less definite and more complex activities which I hold to have all the essential characteristics of instinct actions. But I think I may rightly protest against such usage; for "instinct," as I use it in this connection, is surely employed (as I think it should always be employed) as an objective term, to describe

¹ *Nature*, 18th April 1895.

certain activities which occur in organisms as we note their life actions; and the word "impulse" cannot, I think, be properly applied in psychology with such objective significance. For "impulse" should in my opinion always have subjective significance in psychology; it is the word we use to describe those more or less painful states of consciousness which are determined by the presence in mind of persistent images of the realisation of distinctly motor activities which are not, in fact, realised. Impulses, as I shall attempt to show in Chapter XIII., are mental phases which in an objective view we always find to be determined by the inhibition of instinct actions as these are more or less modified by experience; which instinct actions have been stimulated by the presence of the conditions that might normally call them out, but which for one reason or another are not at once realised.

But whether or not this be accepted as true, it will be granted, I think, that the word "impulse" is widely employed in psychology to describe psychic phenomena pure and simple, and that it has gained this significance through long usage in the study of introspective psychology and in the allied philosophical studies, notably in ethics, where it is constantly used with subjective reference.

It is true indeed that students of physics and of physiology have become accustomed to use the word "impulse" objectively to describe distinctly physical processes; one billiard ball is said to impart its impulse to another ball; the neurologist speaks of the impulse from the terminal nerve organ reaching the cortex of the brain.

But just because this usage of objective science exists, it is especially to be desired that the greatest care should be taken to discriminate between the subjective and objective use when we employ the term in a science in which the subjective significance is usual, and proper, and import-

ant. It is, I am confident, because Professor Morgan has not freed himself from his habit of speech as a physiologist, that in writing upon psychology he occasionally lapses into the objective use of the term; as, for instance, where he suggests that "we understand by impulse an organic tendency which may have a conscious accompaniment."¹ This *tendency* is surely a fact objectively noted.

But if we consider the matter subjectively, unless introspection deceives me, we are warranted in saying that we experience in this connection two mental states only: 1st, the "instinct feelings" which are coincidents of the "instinct actions," which latter are the objective evidences of this "tendency"; and 2nd, what Professor Morgan, using rather popular language, has elsewhere called "the relative instability of a need or want," in direct connection with these possible "instinct actions"; and this last state of mind, I think, is what writers in philosophy, in psychology, in ethics, and sociology call "impulse."

§ 5. Having, as I believe, justified my extension of the term instinct to cover broader, less definite reactions than those to which the biologist ordinarily applies the term, I shall now attempt to show that there are reasons for an extension of the application of the term in an opposite direction to apply to those less complex forms of activity which do not involve the whole of a complex organism, but only some specialised part, or so-called organ.

In, and making part of, the bodies of ourselves and all the higher animals we note special parts which have the appearance of being organised in themselves, although included as parts of the wider organism. The heart in man acts to a great extent like an individual organism which is for the most part, during normal life, quite indifferent to

¹ *Habit and Instinct*, p. 141.

the general activities of the organism in which it is found. This independence is much more marked when we descend in the animal scale.

The heart of the frog, for instance, may be cut out, and if it be stimulated properly it will go on beating and performing its life-work as a special individual organism long after separation from the body in which it was originally placed. The whole upper part of the frog may be cut away, and the lower part will act as though it were complete in itself; irritate one leg with acid, and the other leg will attempt to rub away the irritant.

These organs, or parts, thus perform "certain organised trains or sequences of co-ordinated activities in adaption to certain stimuli and circumstances oft recurring or essential to the continuance" of their own continued existence; and these are the marks of instinct action, if we look at them as quasi-individuals included in, and forming elements of, a wider organism of which they, however, are relatively independent.

We find floating about in our blood certain low forms of life, what we call phagocytic corpuscles, which cannot be thought of as parasites, in which appear self-protective reactions corresponding completely with the self-protective instinct actions observed in independent low-grade organisms, such as exist outside of our bodies; which in other words act exactly like independent organisms, and which, nevertheless, are apparently necessary to the protection and continuance of the life of the large and complex organisms in whose blood they swim about.

In comparison with these we cannot help thinking of ourselves who may live and act as individuals quite independent in many ways of the social aggregate of which each man normally forms an elementary part, and yet showing in our very selves instincts which are determined

by the fact that our ancestors have for ages past lived as social beings. In us appear individualistic instincts and tendencies to purely individualistic reaction; and yet as we shall see later¹ there is evidence, which we cannot waive aside, which leads us to believe that we are, from one point of view, merely elements of a complex social aggregate which is itself an organism of a very highly complex nature, but of a very low organic form.

§ 6. All this leads us to a still broader conception of the meaning of instinct than we have thus far adopted.

In the simplest conceivable protoplasmic mass which continues to live, a stimulus will produce a reaction tending to produce change which, as the result of contest for survival, will result in such accommodation as will prevent its destruction. When simple units of this nature aggregate, then we note action of individual elements which is of advantage to themselves, and which also is of advantage to the aggregate, and this is what we may properly call an "instinct action," the mark of the existence of an instinct within the mass; this simple aggregation then performs "certain organised trains or sequences of co-ordinated activities in common with all members of the same more or less restricted group in adaption to circumstances oft recurring, or essential to" its continuance; and the words in quotation marks above are taken from Professor Morgan's definition of Instinct which we have agreed is correct, so far as it goes.

As the organism becomes larger and more complex, we find groups of cells, themselves organised as special individual parts, taking the place of the simple cells which were aggregated in forming the very simple organisms we have just been describing; and yet we find these organised parts

¹ Chapter VII.

exhibiting instinct actions of their own, subordinate instinct actions we may call them, which nevertheless appear at the same time as the expression of instincts relating to the whole, larger, organism.

As organisms become more complex, the relations between the parts become more complex: in some cases the relation between the elements is close, and interdependence relatively perfect, in other cases the relation is a loose one, and interdependence relatively imperfect; but in all organisms, from the highest to the lowest, we find the same relation of action of part to action of whole: neither the thorough organisation nor the interdependence of the elements indeed being ever absolutely complete, so long as the organism holds together; but on the other hand also, the subordination of the part to the whole being never absolutely complete, the part being always to some extent organised as a system apart from the whole larger organism.

Physiologists have indeed made an artificial distinction between certain forms of these actions, by reference to our own conscious experience, for we have found that the instinct actions of the parts that upon occasion act most distinctly as independent of the whole organism do not affect our consciousness appreciably; and we come to call these actions "reflex actions."

Professor Bain in his *Sensation and Intellect* classifies "reflex action" under Instinct; he thus stands in opposition to Mr. Spencer and to the large number of physiologists who emphasise the distinction between reflex and instinctive action.

Professor Morgan (*Habit and Instinct*, p. 7), following Mr. Herbert Spencer, would have us distinguish between reflex action and instinctive activity—a reflex action being described as "a restricted and localised response involving a particular organ or a definite group of muscles" which "is

initiated by a more or less specialised external stimulus"; an instinctive activity on the other hand as "a response of the organism as a whole" which "involves the co-operation of several organs and many groups of muscles"; Instinct being thus "compound reflex action" in Mr. Spencer's terms.

This distinction, however, is evidently an artificial one, as I have said above; for the "particular organ" and the "definite group of muscles" are in themselves organised systems, lesser organisms in fact, which have become perfected and have taken their place as parts of a wider organism. All reflex actions have the characteristics of the instincts in that, as we have seen, they enable the animal to perform (to use again Professor Morgan's definition of Instinct) certain "organised trains or sequences of co-ordinated activities in common with all the members of the same more or less restricted group in adaption to certain circumstances oft recurring or essential to the continuance of the species." We make the distinction between instinctive and reflex actions for practical convenience merely, for the reason that we usually concern ourselves with instincts which relate to the whole of very complex organisms, and the so-called "reflex actions" are instinctive reactions of less complex parts of these organisms.

The question as to whether there are psychic correspondents of these reflexes we must pass over; it has been already treated in Chapter II.: but I submit that if we could eliminate all knowledge of our own bodies, and could look upon animal life in the broadest way, and impartially, from an objective standpoint, it would never have occurred to any one to make the distinction between reflex action and instinct action to which I here refer. In all cases from the very lowest to the very highest we find automatic action of elements or parts for the benefit of the organism of which they are

parts. In the highest forms of life we find these parts themselves highly organised and closely interdependent; and as we descend in the scale of life we find in some cases reduction of the interdependence between the parts without corresponding loss of organisation in the parts themselves. As we trace life in still lower forms we find varying degrees of organisation in the special parts, and varying degrees of interdependence between these parts, and we find a constant decrease of this organisation and interdependence; but we have never been able to discern any form of life, so far as I know, however low it be in grade, in which appears any divergence from the general form of action of parts for themselves and yet also for the aggregate of which they are parts; a form of action which in the highest types of organic life we call instinctive action.

In closing this special discussion I must ask the reader to note that under the conception above considered, all instincts, whether simple or complex, are brought under one category; *that all instincts appear as modes of that simplest of all forms of activity, the reaction of a living cell to the stimulus received from its environment.*

CHAPTER V

THE CLASSIFICATION OF THE INSTINCTS

§ 1. THE number of the instincts which we observe in animals and in man is so indefinitely large that it is necessary to classify them in some manner before we can study them with any accuracy or with any advantage. Such classification may be made on various lines: the one I present below is adopted because it brings into prominence the order of the appearance of instincts in the evolution of animal life; the existence of such an order will be seen to be of importance when we come to study the nature of Impulse in Part III.

§ 2. The instincts we are about to consider are capacities which result in co-ordinated actions of organisms as wholes, and which subserve certain ends of biological significance for these organisms. It is well, however, to remind ourselves at the start that the differentiated parts of the higher organisms (*e.g.* the heart, the lungs) are themselves more or less organised, that they themselves act as units to a great extent, and that these special differentiated parts of the larger organic wholes themselves function to ends of importance to their own organic existence. In one sense, therefore, these differentiated parts may be said to act instinctively, as I have shown in the closing sections of Chapter IV., and did they not to so large an

extent act in fixed orders and relations, or reflexly as we say, we might be compelled to treat them at some length here.

But these actions of differentiated parts are of importance to the higher organic life only in relation to the wider reaction of the whole organism, and we shall therefore not stop to consider them here further than to call attention to two facts:—

(1) That so long as they receive their normal stimuli to activity they act normally and for the most part reflexly as we say; and so far as we can judge by our own experience the psychic coincidents of these activities in affecting consciousness merely form part of an unanalysable psychic mass which in ourselves we call Ego.

(2) That if the normal stimuli to their normal action be interrupted these parts themselves act more or less as individual organisms do, changing their action to meet the unusual demands placed upon them; and under such circumstances the psychic coincidents of their unusual activities produce not infrequently an appreciable effect, and often a most noticeable effect, upon consciousness. The heart and lungs, for example, under excessive stimuli will undertake excessive work and will bring clearly into consciousness their working which under normal conditions, when the physical reactions are mere “reflexes,” do not affect consciousness appreciably.

These facts will be found to have their parallel in the instincts of animals which we are now about to treat.

§ 3. If we consider the instincts from an objective point of view, as they appear in the lives of men and of the higher animals that surround us, and apart from those effects upon consciousness which our own experience teaches us to attach to them, we cannot fail to note that in the

main they easily cast themselves into three grand divisions determined by the laws of organic development :

(1°) We have a great mass of instincts which function to the preservation of the individual organic life.¹

(2°) We have a special set of instincts which function to the preservation of the species to which the individual life belongs.

(3°) We have a very complex set of instincts which function to the preservation of those social groups which we discover amongst many species of animals, and which appear most markedly in the highest animal—man.

As this distinction seems to me important and intrinsically interesting I shall consider each of these groups by itself.

I.—INSTINCTS RELATING TO THE PERSISTENCE OF THE INDIVIDUAL ORGANISM

§ 4. We find much evidence, when we study the lower forms of life existing around us, that in the earliest formed types of organic aggregates, individual existence from a biological point of view was all-important. In certain cases the presence of other individuals of the same type

¹ It has been suggested to me that there is a logical objection to this classification in the fact that what I call individualistic instincts only appear as such in the fact that they are contrasted with social instincts, and that if the instincts of the first class are to be separated from those of the third class they should be called by some other name : say, instincts of isolation.

I think the criticism is valid from a narrow point of view, but in considering animal life objectively the individual elements of an aggregate, when they separate from the aggregate, are looked upon only as individuals ; and thus it becomes quite possible, without logical inconsistency, to consider separately the instincts which belong to the part and not to the whole. I would adopt another term to describe these earliest of instincts could I easily do so without rendering my meaning obscure : but I think the reader will be in no danger of misunderstanding me, in consideration of the references on future pages to the fact that in complex life the instincts of the first class can never be considered to be more than relatively independent.

would be a distinct disadvantage; *e.g.* where the supply of nutriment in the environment was limited; and it is difficult to see how the presence of other individuals of the same type could be of advantage where co-operation was not possible, as was often the case: and especially would this be true so far as the presence of other individuals was not necessary to the continuance of the type, for the lowest organic forms even as we observe them to-day are able to reproduce their kind by mere division of the individual parent mass, as we have already seen.

It is true, as we shall see in the next division of this chapter, that very early in the development of animal life we find nascent reproductive systems and incipient sexual processes through which continuance of type is determined by the co-operation of different individuals; still, even in these low organic types we note many forms of reproduction without sexual differences or relations; and many which are independent of conjugation between different individuals—parthenogenesis, hermaphroditism, and the like; and in certain types where sexual reproduction is possible, and sometimes where it is usual, we find it often replaced rhythmically or irregularly by non-sexual reproduction, which latter makes the individual self-dependent in this propagation of its kind.

All this makes it appear probable that individual organic life, with inherent power of reproducing its own kind, long persisted on the earth before the slight advantage gained by sexual differentiation began to make the existence of different individuals of importance, and dependence of one individual upon another necessary, if the type were to persist. And during this long period the animal must have been self-dependent individually; in it must have arisen and grown to perfection many instincts which related only to its own individual persistence.

Thus very early in the growth of complex, diverse, functioning, in low forms of life which we ourselves can observe, we find the appearance of special activities tending to gather nourishment, others fitted to produce its absorption, others functioning in the removal of unused or toxic products of the assimilative process; all these activities being essential to individual existence. As organisms increase in complexity the variety of these differentiated functionings increases enormously, as all those who have studied even the rudiments of biology know well. And it is clear to the observer that these actions as above described are organised, are congenital, and tend to produce results of biological significance to the organism in which they appear; and that they are true instincts.

Modifications of these instincts which developed before conjugation was necessary for reproduction, are found in all animals of higher types, and in man. But in the higher animals we find still more complex instinct actions of purely individualistic import, which, in consideration of the existence in the lower animals of the simple purely individualistic instincts just referred to, I think we may take it for granted have been developed solely on account of their value to the individual organism.

Amongst all animals we find certain complex co-ordinations of activities of the most diverse kinds looking to protection of the individual, *e.g.* the instinct actions which lead the chameleons to assume the colour of the material upon which they happen to be standing; those which lead the hedgehog to roll itself up into the form of a spine-covered ball upon the approach of danger; those which lead animals of diverse species to feign death in many ways. Many other illustrations will be found in the works of evolutionary biologists.

We find still other co-ordinations which result not merely in protective action but which bring positive individual advantage, *e.g.* the actions by means of which animals of very diverse kinds manage to store away surplus food; the ant in its hill-like storehouse, the squirrel in its tree hollow, the dog in the hole which it freshly digs in some soft bit of earth.

It is to be observed here that as these forms increase in complexity it becomes a question of doubt how far the activities are congenital and how far modified by experience, but that they have a congenital basis I think none will doubt.

I would here ask the reader to note that if the specific organs whose activities are involved in these processes be urged to unusual functioning by some condition of hyper-normal stimulation, then they are liable to act as though they were independent of the organism as a whole.

Under conditions of morbid stimulation the lungs and heart will often undertake extraordinary work. This action may be modified by the influences from the rest of the organism sufficiently to prevent disaster to the organism itself; but on the other hand the excessive activity may, and not infrequently does, result destructively to the system as a whole before this modification through systemic influences can take place.

The intestines, in like manner, will function with excessive vigour to throw off colonies of poisonous microbes, and, if the restraining influences from the organism are not effective, their action may bring death to the whole organism through the general exhaustion caused by efforts to function for the advantage of the special part.

We shall find the value of this observation as we proceed.

§ 5. Inasmuch as we find all the individualistic instincts above referred to evidenced in the life of man, we may well enquire how far they are appreciated in our psychic life.

It seems to me that we should expect to find, as we do find, that a very large part of the instinct feelings corresponding to those instinct actions relating to the attainment of and to the assimilation of nourishment, and relating to those which have to do with the removal of waste products of the assimilative process, would, as a rule, affect consciousness merely as elements of the unanalysable mass that we call our Ego, if they affect the pulse of brain consciousness at all: and we are led to see that this is necessary for the reason that they have attained great regularity of action and, relatively speaking, are not at all forceful.

When we learn by anatomical observation that these activities are governed principally by the special nervous system called "the sympathetic," which is only indefinitely related to the brain system, we see that, in all probability, a large part of the psychic coincidents of these instinctive acts cannot enter into our higher consciousness at all under any conditions for the very reason that the neural elements that are thus active are to a great extent, under ordinary conditions, practically disconnected from the the brain. We see also that another large part of these activities will influence consciousness only at rare intervals under conditions of exceptionally forceful functioning.

Thus we come to understand how it happens that a large proportion of those more or less rhythmical activities that are going on in our body at all times, the action of heart and arterial and venous systems, the action of lungs, of stomach, of kidneys, of intestines, altogether fail to be represented in the clear light of attentive consciousness. Thus we see also how it is that these organic activities, so

far as they influence consciousness at all, do so only in certain states of general quiescence, as during the incomplete consciousness of dream life, and during the hypnotic trance: or else in states where these systemic functionings are abnormal in degree; we find, for instance, to our great discomfort, that we have stomach and intestines only because irritants occasionally stimulate those excessive activities that involve painful sensations in connection with the functioning of these organs.

The more complex self-protective instinct actions of which we have spoken above, have also become so thoroughly organised that their instinct feelings cannot be expected to be held in the light of vivid attention: but for all that, we should expect them to affect consciousness in some way unless they are dependent entirely upon actions that are disconnected from the moment's pulse of the brain system, and we should look for their appearance therefore in more or less clearness in proportion to their forcefulness.

Such instinct actions, perfected by life experience, we recognise in the powerful and suddenly developed movements that occur with self-preservation as an end, when one slips in walking; when one jumps back from under the head of a horse that is about to run one down; when one shields one's head from an unexpected blow: and the instinct feelings corresponding to these actions we also recognise well, even if we have no special names for them, this lack of naming being due to the fact that the elements of these psychic states are not often experienced in the same definite proportions and relations.

The stimulations from the environment (of moment, be it noted, to the organs stimulated) which in their turn act as stimulants to these instinct actions (of moment to the whole organism) are usually vivid enough,

and have as their coincidents marked effects in consciousness, unless they are pressed upon us for too short a time or are too soon obliterated by the forcefulness of the instinct feelings that follow in their train.

§ 6. I wish now to consider certain activities of individualistic import which are clearly congenital and therefore instinctive, which produce marked disturbances in our consciousness, although they seem to have been developed very early in the life-history of those organic forms from which we may suppose we are descended.

It seems to me that, without too great a straining of probabilities, we may surmise that the earliest formation of organisms out of mere simple aggregates, of which we have spoken in the preceding chapter, would result in the appearance of certain tendencies to activities involving the whole of the aggregate.

We might expect to find—

(1) A tendency to a complex state of hypernormal assimilative activity in the system as a whole arising upon the appearance of certain changes in the environment.

This tendency if once acquired would certainly become connected with the appearance of objective conditions which in themselves would be likely to bring advantage to the organism as a whole: for if one group of organisms became thus generally active in directions involving assimilative functioning upon the appearance in the environment of substances that could not be assimilated without disadvantage, then this group would surely tend to be obliterated in favour of another group which might happen to remain quiescent under the same conditions. On the other hand if one group became thus active when the environmental change brought to it material that could be advantageously assimilated, this latter group would

persist and tend to increase its kind. In the long run therefore we should find the persistent race tending to become thus generally active upon the appearance of advantageous assimilative conditions.

(2) Again this general organic activity would certainly tend to be reduced in the direction of normal quiescence when the specially advantageous condition disappeared.

(3) In similar manner we may surmise that in these simple organisms there would arise tendencies to the appearance of states of abnormal quiescence of the system as a whole upon the appearance of certain diverse changes in their environment.

The occurrence of such general quiescence, such shrinking, would become connected with the appearance of objective conditions which would be disadvantageous to the organism, as certainly as the occurrence of general activity (1 above) would become connected with the appearance of advantageous conditions. For where the environment contained elements that could not be assimilated without danger, those groups of organisms which became thus abnormally quiescent when these elements were presented would evidently have an advantage over those that under such circumstances remained in normally active, or hyper-normally active, condition.

(4) Again this subnormal quiescence would clearly tend to give place to normal functioning when the unusually disadvantageous condition disappeared.

As organisms became more complex these tendencies to increase and decrease of the general activities as related to assimilation would, it seems to me, in all probability be likely to become extended to general conditions other than those that directly relate to this assimilation of nourishment; would be likely to be aroused by general

conditions which although related only indirectly to assimilative functioning were nevertheless connected with objective conditions dangerous to, or of value to, the organism as a whole: thus we might expect to find in all animals:—

(1°) A tendency to general hypernormal activity, of a systemic kind arising upon the appearance of certain changes in the environment that are of advantage to the organism.

(2°) We might expect to find a tendency to the recurrence from these states of hypernormal activity towards normal or quiescent states of systemic action, upon the disappearance of these advantageous conditions.

On the other hand we might expect to find in all animals:

(3°) A tendency to a repressal of general activities of a systemic kind, upon the appearance of environmental changes that are of disadvantage to the organism; and

(4°) A tendency to the return from these conditions of subnormal action toward the normal; a tendency which would appear upon the disappearance of the disadvantageous conditions.

All of these actions would be congenital actions of the organism towards some biological end of advantage to the organism, and hence under our definition would be true instinct actions, the expression of true instincts.

These instincts having once become fixed in organisms of low grade would be likely to persist in organisms of higher grade which develop from the lower, because it would on the whole be of advantage also to these higher organisms to become functionally active in general when approached by what is advantageous (1° above); and to become subnormally quiescent when approached by what

is disadvantageous, where definite means of escape were not available (3° above).

I think it will be acknowledged to be highly probable that in all animal life from the very lowest to the higher forms, even in man himself, such instinct actions do take place; at all events it is clear that in the animal life that comes under ordinary observation we do note these instinctive tendencies to general hypernormal activity,—to general organic excitement,—arising upon the approach of what we can see to be on the whole of advantage to the organism which acts in this way: and on the other hand we note corresponding instinctive tendencies to general repression of activities,—to shrinking,—to depression of energetic functioning,—upon the approach of what we can see to be on the whole disadvantageous to the organism so acting.

If the existence of these instinct actions (1° and 3° above) be granted, then the existence of the two states (2° and 4° above) determined by recurrence towards more normal conditions must be granted also.

§ 7. Now let us ask what effect we should expect these instinct actions, if they exist in us, to have upon our consciousness. It is true that in us these instinct actions of ancient lineage must be thoroughly co-ordinated, of almost reflex type, but it is also to be noted that they must be very widely distributed in the body and must involve the disturbance of the whole system: moreover they will be in their nature only occasionally recurrent, and when recurring must in general be *immediate in reaction* and hence *forceful* if they are to be valuable to us: all of these characteristics tend to differentiate them from what we ordinarily call the reflex actions. It seems to me clear then that we may properly expect them to be distinctly

recognised in consciousness, and as the actions involved are of a relatively definite and fixed character, wherever they do occur, we should not be surprised to find them recognised under definite forms with definite names.

In a previous work¹ I have attempted to show that the instinct feelings corresponding to the instinct actions of this type are a certain class of that general group of mental phenomena which we call the emotions.

(1) We discover in ourselves states of very general organic excitation, and corresponding with them the psychic state which we call the emotion of Joy; and when we study the subject closely we find evidence that on the whole the organic activities, and their psychic correspondents, appear when we perceive the approach of objects or conditions which must in the past have been advantageous to our ancestors in favouring the persistence of individual life.

(2) We note the return towards normal or even to sub-normal activity upon the departure of these advantageous objects or objective conditions, and corresponding to these activities we note the emotion of Sorrow.

(3) Again we discover in ourselves states of general shrinking; and corresponding with the organic activities involved the emotional state which we call Dread: and when we study these actions closely we find that on the whole they appear when we perceive the approach of objects or conditions which must in the past have been disadvantageous to our ancestors in being unfavourable to the persistence of individual life.

(4) We note the return from such forcible quiescence, such shrinking, to conditions of normal activity upon the departure of the disadvantageous objects or objective con-

¹ *Pain, Pleasure, and Aesthetics*, chap. ii.

ditions, and corresponding with these changes we note the emotional state which we call Relief.

The consciousness which is coincident with these general instinctive actions is noticeable as I have said above not because of any special vividness of particular psychic elements, but because of the width of the effects produced, because of immediacy of the total reaction, because of the mass and forcefulness of the reactions involved.

Here let us note that in these very simple functionings which we have been considering we have first the influence upon the cell parts which are directly affected by the change of environment; and these cell parts as a result of this influence tend to react directly to the stimulus reaching them in a manner natural for them as mere cells: and only secondly appears the influence from the aggregate leading these cell parts to react as above described in accordance with the habits which have served best in the past to bring advantage to the organic aggregate rather than to the elemental parts which first receive the stimulus.

So far as the elemental parts of the organism are concerned, therefore, we should expect to note, primarily, action of these elemental parts as they tend to function for their own benefit; and, secondarily, action of these elemental parts as they tend to function for the benefit of the organism as a whole: a course of events which, as I have already remarked, I think can be traced through all activities of organisms.

As a result we should expect to find forceful elemental action preventing the occurrence of the action for the benefit of the organism as a whole, and this should be noted in our conscious life. And if my reader will think of this matter for a moment he will realise that on the one

hand forceful presentation of, and great interest in, the objects themselves that usually arouse these emotions, or on the other hand vivid resultants from such presentations, may prevent the occurrence of these emotions within us. Some marked change of dress in our friend may absorb our thought and prevent the appearance of joy at meeting him. The doctor may become so interested in unusual symptoms that he will fail to feel the sorrow that would normally arise upon the appreciation of the fact that he must lose his friend by death.

§ 8. Let us now consider certain instincts of a higher grade than those which up to this time we have been studying; higher instincts which are indeed of individualistic import, but which are so frequently determined by the presence in the environment of living objects which are other individuals of the same species that the individualistic nature of the instinct is often lost sight of.

The lowest animal forms with which we are acquainted are almost passive in relation to their environment, and such actions as we have described in the previous two sections involve little more than this mere passivity. But as we rise in the scale of life we find the animal no longer merely passively awaiting the approach of what may be of advantage to it, and allowing the departure of what may be of disadvantage to it. We find the animal acquiring capacities which enable it to move in its environment. We find that the appearance in its environment of objects that primarily stimulate certain of its elemental parts, is followed, secondarily, and more or less promptly, by movements of the whole organism; movements which involve subordination of all the related parts to the requirements of the organism as a whole, and imply an interdependence, an integration, between the parts of a much higher order than

is implied in the existence of the "instinct actions" considered in §§ 6 and 7.

First let us speak of movements of two special kinds,¹ those (α) carrying the whole animal towards the object that stimulates its special parts, and those (β) withdrawing it from the object.

It is evident that the former actions (α) will become connected with the stimulations produced by objects that will be of *advantage* to the organism; for those groups would tend to be destroyed, that, having attained this capacity of approach, found themselves stimulated to the activities involved by objects that were of disadvantage to them.

It is equally clear that the actions (β) bringing about withdrawal of the whole animal from the object stimulating some special parts would, as the outcome of elimination, become connected with the approach of objects that are of *disadvantage* to the organism: for the individuals of certain groups would be at a disadvantage in the struggle for life, which, having attained this capacity of withdrawal, found themselves stimulated to the activities involved by objects that were of advantage to them. This disadvantage in the strife would arise because other groups which did not withdraw from these advantageous objects, and which did withdraw from the disadvantageous objects, would tend to be successful in the struggle for persistence.

In all animal forms from the lowest to the highest we note the existence of these two types of instinct actions. A stimulation is produced in the eye of the fish by the movements of a fly on the surface of the water; this is the

¹ The classification in this section has already been suggested in my book above referred to.

primary effect: but secondarily there arises a violent, well co-ordinated, reaction, involving in greater or less degree a large proportion of the parts of the organic whole; a reaction which results in the fish's rushing to the surface and snapping at the fly. The chick just out of the shell will in similar manner dart at and swallow bits of food, or of material resembling food-stuff.

On the other hand, the cry of the hawk, which at first merely stimulates the ear, will secondarily send the same chick running with panic away from the sound. The distinct scent of man, borne on the gentlest breeze to the delicate sensory organ of the deer, will result secondarily in its rapid flight.

In all these cases the reader will have noted that the instinct action which appears secondarily relates to the welfare of the organism, and only most indirectly to that of the part stimulated which is primarily affected. The action of the fish in darting at the fly can be of no direct advantage to the eye which is first stimulated; only of indirect advantage to it in that the eye is nourished with the rest of the body as the result of this action: but that the action in reference to the fly is of great advantage to the organism as a whole is self-evident. The flight of the deer can surely be of only the most indirect advantage to the organ of smell, the stimulation of which aroused the reactions connected with running: but that this flight is of value to the whole body of the deer is very clear.

Again (γ) we find certain still more complex and more thoroughly co-ordinated activities which bring about approach of an organism to an object which is disadvantageous to, or the killing of which is important to, the organism which approaches; the object approached being either weaker than the organism that approaches, or

one with which it is usually able to cope. But the approach in such cases is accompanied by actions very different from those observed as accompanying the instinct to approach described under (*a*) above; the actions here are no longer of a receptive but of a hostile nature, they now, if effective, result not only in approach but in the disablement or repulsion of the object which it is important to disable or to repel.

And here too we note that these actions of the organism as a whole, for the benefit of the organism as a whole, occur secondarily, following upon the primary stimulation of certain special parts of the attacking organism, due to the presence of the object that is to be repelled or disabled. In illustration of these actions it is only needful to speak of the suddenness of attack by the spider upon the fly, by the cat upon the mouse, by the tiger upon the antelope, or by spider, cat, or tiger upon its competitors in sexual relations: and it is to be noted that in all these and like cases the action involves all parts of the organism to a greater or less degree, all parts working together for the safety of the organism that has been stimulated only in some special parts; these special parts themselves being in no way capable of being harmed by the stimuli which reach them.

Again (*δ*) we find certain still more complex activities tending to produce the attraction to the active organism of objects the approach of which will in one way or another be of advantage to it. Of this type are the little understood fascinations produced in the bird by the snake; as well as those actions, for instance the strutting of birds, the spreading of the peacock's tail, which Professor J. Mark Baldwin has suggested that I call the "self-exhibiting reactions," and which seem to have no other primary function

than the attracting of attention to the animal thus exhibiting itself. All these actions, it is again to be noted, are of the organism and tend to conserve the organism rather than the part which is first stimulated; as we shall presently see, certain of these activities are further elaborated and put to a still more complex use as development proceeds.

Again (ϵ) we find similarly a large variety of actions of the whole organism which are brought about by stimuli that are of doubtful import; actions which bring the animal into those positions in which it is able to perceive clearly and with the greatest distinctness. I refer to those sudden actions connected with alertness and attention that we see in animals of all grades; the facing of the stag towards the hunter whose scent is not clearly discerned; the spring to the feet with ears erect of the resting dog, when he hears the step of an unseen walker.

The reader will be ready to grant that all of the instincts above described are exhibited in the lives of men, the highest of animals.

§ 9. If we now ask ourselves how far these instinct actions should be expected to affect our consciousness we are led as we were in § 7 to look for special psychic effects, because although these instinct actions are thoroughly coordinated, nevertheless they are in their nature only occasionally recurrent, and when recurring they must be *immediate in reaction* and *forceful* if they are to be of value to us as individuals. Moreover the actions we have under discussion are also relatively definite and fixed in character whenever they do occur, and we should expect them therefore to be recognised under definite forms and with names classifiable in the same category with the states Joy, Sorrow,

Dread, and Relief already considered: in other words we should expect them to be recognised subjectively as distinctly emotional states.

Now as a matter of fact we do find within ourselves complex instinctive actions (α), involving excitations of a very wide nature, which result in a tendency to go out towards certain kinds of objects which, in a large proportion of cases, we are able to see when we study the matter, must have been in the past of advantage to our ancestors, or which are still to-day of value to us as individuals of the human race. Corresponding to the pulse of physical activities determined by this instinct we should expect to find within us, a special psychic pulse. This pulse of consciousness, I have endeavoured to show in the same chapter of the work above referred to, can be identified with the emotion of Love, using the word with its widest significance.

Again we find within ourselves, complex instinctive actions (β) involving excitations of a very wide nature, which result in a tendency to withdraw from certain objects; and others (γ) which result in a tendency to drive away these same objects: and we discover upon study that the objects referred to in a large proportion of such cases must have been in the past of disadvantage to our ancestors if they are not of disadvantage to us to-day. Corresponding to the pulses of activities determined by these instincts we should expect to find within us, special psychic pulses, and these, in the same chapter referred to immediately above, I have claimed can be identified with the emotions of Fear and Anger respectively.

It seems to me clear that this group of instinct actions must have been developed very early in the history of our race, and although this fact would lead us at the first thought to expect the disappearance of their coincident psychic states within the mass of unanalysable elements

that makes up the body of our ego-consciousness, inasmuch as such disappearance usually takes place where activities have become thoroughly organised; yet on the other hand, here again, the efficiency of the activities is dependent upon immediacy of forceful reaction, and this forcefulness itself should lead us to expect to note the appearance of these "instinct feelings" in consciousness. Furthermore, as the activities involved are of a relatively fixed nature and co-ordination, it does not seem to me that we should be surprised to be able to identify them with such relatively fixed psychic states as are named in Love, Fear, and Anger.

For the same reason we should expect to find marked in consciousness the instinct feelings corresponding to those complex instinctive activities that determine effective attention (ϵ) with its accompaniment of clear perception; for these instinct actions are forceful and immediate in reaction. I think we are able to recognise these instinct feelings in consciousness in the complex state known as the emotion of Surprise.

The "self-exhibiting reactions" (δ) considered in the last section, occur too seldom in men of the higher types to warrant us in expecting their instinct feelings to be identified with any marked conscious state; and the imitative actions and those other actions spoken of above which relate to individual advantage are so varied in their nature, involve so little regularity of reaction and so little special forcefulness, that their instinct feelings also must be expected to fail of marked recognition in our conscious life. That these expectations are realised I think my reader will readily grant.

These emotions, Love, Fear, Anger, Surprise, are thus seen to be "instinct feelings" correspondent to certain co-ordinated "instinct actions" of individualistic moment.

These latter, be it noted, are actions of organic import, which are normally stimulated, as in the case of the physical actions connected with Joy and Dread, by certain objective stimuli from the environment which act forcefully upon some one or more specific parts or organs. We should expect therefore to find the perception, which is the inceptive agent of the emotion, to be in normal cases a vividly conscious state. And this we find to be a fact of general experience. The objects which are loved, feared, and which anger and surprise us, are of great importance in consciousness.

These objects are clear to our minds because they produce reactions of specific organs and the resultants of the same, reactions in themselves of direct moment only to the elemental organs that react: but on the other hand it is very evident that the instinct actions which they bring into existence are of direct moment to the life of the organism as a whole and only very indirectly of value to the elemental organs first affected.

Here again then we are prepared to find that on the one hand forceful presentation of, and great interest in, the objects themselves which usually bring these emotions into existence, and on the other hand vivid resultants from such presentations, may prevent the occurrence of the emotions in us. Or to speak in objective terms, the primary elemental action, if sufficiently powerful, may prevent those reactions of the organism as a whole which are of general organic import. The terminal organ itself, the eye for instance, may be so powerfully affected as to act to its own self-protection by the closing of its lid, thus preventing the perception which is necessary to the production of the specific emotion. Or this perception itself may lead to some purely analytical interest in the object perceived, and

this interest again may be so powerful as to prevent the emotional reaction.

The dread of danger by explosion is lost by the chemist who becomes keenly interested in the production of some unusual chemical combination ; nor is relief felt under such conditions when the dangerous experiment has been made, and the unrealised peril is past. In other words the instinct feelings of *organic* import often fail to appear if the *elemental* stimulation is excessive or if its resultants find ready attention.

It is not necessary to stop here to give further examples ; the facts to which I call attention are clearly observed, although less clearly than they will appear later when we come to consider organic actions of less fixed relation, which occur in organisms the parts of which are less intimately integrated.

§ 10. In what has preceded this I have said so much about the emotions that I cannot refrain from reminding the reader that, until late years, the only current view in relation to emotional reaction was that which came down to Darwin, and which Darwin himself held, namely, that the emotions cause the expression, cause the special "instinct action" as I would express it. The reader will remember also that Professors James and Lange have within the last few years presented almost simultaneously, and quite independently, the theory that the emotion does not cause the expression, but that on the other hand the expression, the "instinct action," causes the emotion. This contention is largely involved with the hypothesis of what I may call, in the language of Professor Lloyd Morgan,¹ the "back stroke" theory of the conscious side of emotional expression, a theory which contends that all the emotional

¹ Cf. *Habit and Instinct*, chap. ix.

consciousness is due to effects sent back to the brain, after the act, by the ingoing nerves.

I do not find myself deeply sympathetic with this view because, as the reader of Chapter II. will appreciate, I think there is a high probability that the whole pulse of activity of the whole connected neural system, brain, nerve fibre, terminal organ, is concerned in the pulse of consciousness of any one moment. But the whole question is laid aside if we express the relation between emotional expression and the emotion itself in other terms which give us a definition that will not break down even if the "back stroke" hypothesis should eventually turn out to be stronger than I think it is.

The definition I propose, as already expressed in previous sections, is this: emotional expressions are a certain type of "instinct actions," and the emotions are the "instinct feelings" concomitant with these "instinct actions," and appearing coincidently with them.

The "back stroke" theory above referred to naturally emphasises the importance of the muscular sensational elements in the total emotional complex, and Professor James, in his exposition of this subject, has given what seems to me just ground for criticism in that he gives one the impression that these muscular sensations are more important than on the whole they really are. For, as I have stated some years since,¹ and as Professor Morgan brings out clearly in his book above referred to, differences of muscular reactions in expression do not make the differences in emotional states that we should expect they would under the theory which holds that the elements of muscular reaction are all-important; fear, for example, is to a great extent, although not by any means altogether, the same whether we strive to escape danger by flight or by crouching.

¹ *Pain, Pleasure, and Æsthetics*, p. 83.

Furthermore, apparent similarity of muscular reactions in expression does not necessarily involve marked likeness of emotional experience; a child may express love by running to his friend, and fear of some object also by running to this same friend, and the most obvious and vivid muscular reactions are in both cases those connected with running.

But these difficulties have induced Professor Morgan to defend an hypothesis which seems to me to be of an even more doubtful nature than the one he opposes: leads him to hold that the "*visceral feelings*" are of the essence of the emotions. But what can be more difficult to define than the meaning of this term "*visceral feelings*."

I think we are more likely to be found correct eventually if we say that the emotional psychic experience is the coincident of the total reaction of the neural system concerned at the moment of emotional expression; and that we must not judge from the obviousness of the perceived outer movements that the part they play in the total reaction is by any means the most important one; nor that the coincidents of these muscular reactions are the most effective elements in differentiating the form of the total pulse of conscious life at the moment of the emotional reaction.

§ 11. In closing this imperfect review of the individualistic instincts, I desire to lay especial stress upon the necessary implication which appears in connection with the study as thus far made, viz. that if complex organic individuals are to persist, the tendencies to action of their organic elements for themselves alone must necessarily on the whole be subordinated to tendencies to action in reference to the organism as a whole: or in other words, elemental variance must in the main be subordinated to instinct. In general we may argue (although there are

exceptions to which we refer below) that only because the action of the parts in subordination to organic demands is of indirect advantage to the parts, through the direct advantages gained by the organism as a whole ;—only thus can we account for the elaboration of, and the persistence of, these general organic “instinct actions” which we have been studying. Were this subordination of elemental variance to instinct not of importance to the organism (and hence indirectly to its parts), the “instinct actions” would probably not have become co-ordinated at all, and would have been very unlikely to have persisted, even if such co-ordination had once appeared in the process of development.

II.—INSTINCTS RELATING TO THE PERSISTENCE OF THE SPECIES TO WHICH THE INDIVIDUAL ORGANISM BELONGS

§ 12. In the sections preceding this, we have been considering certain instincts, some of which have appeared to be very complex in their nature, and yet, as we shall presently see, all of which are relatively very simple indeed; this relative simplicity being determined by the fact that they have concern with the welfare of individual organisms only, while the very complex instincts to which we now turn our thought are concerned with functioning which has a wider bearing than upon individual life alone.

Let us now consider the appearance in animal life of a set of activities which are in part of new and unique type, and yet in part but specialised developments of certain of those instincts already considered; activities which in all cases relate not so much to the advantage of the individuals of a certain race as to the race itself; instincts which have to do with the persistence of species by reproduction.

Far down in the organic scale appears the development of habits of conjugation, which lead to the reproduction of organisms through the fusion of two individuals. This means of multiplication of individuals gives place, in higher forms, to the fusion of specialised parts of the two individual organisms concerned, this occurring in all animals of late development within the body of one of the two organisms. This process continues to increase in complexity until it gives us the highly differentiated reproductive systems found in the animals highest in the scale of development. Into the fascinating details of the evolution of these processes of reproduction I do not think it worth

while to enter here; even were I capable, I could at best give but an imperfect sketch of this development in such a book as this, and I think it better to refer the interested reader to strictly biological works which treat of the subject. I shall, however, ask him to examine with me some general points in connection with these processes that are of importance for our argument.

§ 13. The actions directly relating to conjugation when opportunity occurs are in a large proportion of cases separable from the simpler individualistic reactions, and appear later than these simpler individualistic reactions both in the life-history of races and in that of individuals of a race.

But we find appearing a little later still in race and individual development certain differentiations of the individualistic instincts already acquired, differentiations which are also made to subserve purposes not relating to individualistic advantage at all but to the persistence of the species through reproduction.

Let us suppose that certain stimuli reach a special organ of some animal, say the organ of smell; the activity thus set up under certain conditions in a limited part of the body brings about in certain cases, as we have seen, secondary resultants which lead the animal to attack what is its individual enemy; while in other cases these secondary resultants may lead the animal to approach an object that is likely to bring advantage to it. As we have already noted, in neither case does any advantage accrue as a result of these activities directly to the special part which is active in smelling, but great advantage does accrue to the individual organism, which in gaining advantage brings benefit indirectly to the special part.

But we may take a step beyond this and note that the

above-mentioned tendency to go out towards the object affecting the senses may result in activities which relate solely and entirely to the reproduction of new individuals of the same species ; and here we have a series of activities which no longer relate to the sensory organ affected, nor, except incidentally, to the active organism itself, but which do relate to the perpetuation of the species to which the organism belongs. The reader will perceive that we have here to deal with a series of activities which is exceedingly complex ; and he will also agree, I think, that in these cases, in consequence of this complexity, the reactions will tend to be slower in following the stimulus ; slower not only than the primary actions in the organs first affected, but also than the instinct actions of merely individualistic significance which these primary actions might induce.

Of this type of organic activities which function for the benefit of the race of which the individual organisms are for the time being the representatives, we have, as just noted, certain elaborations of the instincts that lead to the approach to the advantageous, elaborations which result in the development of tendencies to approach those particular members of the opposite sex that in the long run have turned out to be best fitted to act with individuals like the one approaching, to the end that new and vigorous organisms of their kind may be reproduced. Again we have also certain instincts that lead to the attraction towards the active animal of those individuals of the opposite sex whose approach is advantageous in this same respect.

Both of these instincts are widely elaborated in the course of animal development, forming two distinct classes : in the first class belong all those varied instinct-actions that relate to sexual pursuit ; in the second class belong such of those " self-exhibiting reactions," above referred to, that tend to bring the object of attraction into prominence in sexual

relations; such instincts, for example, as lead to the strutting and display of plumage, by birds.

But there is a further and still more complex series of activities, relating also to the reproduction of effective offspring, which arise much later than the activities which have to do directly or indirectly with sexual conjugation. I refer to those immensely complex instincts which relate to more or less permanent mating, which have nothing to do with momentary sexual gratification, but which result in the protection of the mother during the period of the growth of embryonic life within her; lead to the making of preparation for the care of the offspring which are to be born to her, and for the protection of the offspring until they have gained strength to cope with their adversaries.

§ 14. It becomes clear in connection with these instincts that the instinct action is secondary in its production to the primary action in the individual. We have here instincts which may originally have had individualistic functions, which functions, however, have been modified to subserve racial ends; and we note that, if a stimulation which might bring out the original individualistic reaction be excessive, the individual will be likely to follow his individualistic tendencies and act with reference to this individual advantage and without reference to racial demands; and this for the very reason that in general the more complex instincts are, as we have just seen, slower in reaction than the less complex.

For instance, the force born of starvation, which is of individualistic import, will overcome the racial sexual demands, will divert the male from search for the female, and will also prevent the indulgence in attractive self-exhibition. The sight of some favourite food will lead one bird to turn in its course, whilst all its fellows imitatively

follow their leader in the migratory flight towards the breeding-ground in which only they can rear their young. The very migratory instinct itself, which is felt as an individualistic demand, if it be induced by the sight of the flocking of other birds of her species about to leave the breeding-ground, will often lead the mother bird to abandon her lately hatched brood, leaving them to certain death from exposure while she follows her fellows in their flight. Further examples of an objective kind seem scarcely needed here, and we may pass on to the consideration of the psychic aspect of these instinctive actions.

§ 15. I am willing to pass to this study of the conscious side of these instinctive tendencies, which are of import for racial persistence, after such a very brief reference to their objective appearance in the lives of other individuals of our race and of other animals surrounding us, because of the fact that we are now dealing with instincts which appear as very important factors in the life of man, the effects of which upon consciousness we must therefore expect to be able to discern with a good deal of clearness. This fact will lead us to treat the psychic aspect of these instincts with more fulness, and will sufficiently supplement the very brief statement from the objective standpoint just made.

The instinct actions connected with sexual connection are of the earliest origin and are thoroughly organised, so thoroughly indeed that, as we know, they may take place in certain of the lower animals after the brain has been extirpated. We should expect, therefore, that a great mass of their corresponding instinct feelings would but dimly figure in consciousness at all; although inasmuch as the actions involved are called out during our life most irregularly, and yet are singularly forceful when they do appear, we should expect to find some effect recognisable in

our conscious life. We should expect then to discover in their case a general mental state of the most pervasive and voluminous character with some special lines of very marked vivid consciousness: and this expectation, I think, is fully realised.

Those complications of the love instincts which relate to sexual pursuit are attended by sets of activities which are thoroughly organised, and which, nevertheless, are upon occasion brought into such powerful action as to force their psychic correspondents into the clear field of our conscious life: but besides these there are certain less well organised, but very powerful reactions which become most emphatic in the mental state of the moment.

That we may be turned aside from this pursuit, however, with no great difficulty, by interests arising in the course of the development of the instinct actions, is also clear.

For obvious reasons it is not desirable to treat this special subject at length, especially as this is unnecessary, inasmuch as the points I wish to emphasise are as well or better exemplified in connection with other groups of instinct feelings.

The elaboration of the "self-exhibiting reactions," so closely connected in function with those relating to sexual pursuit, have, to a great extent, lost their value to such men and women as will read this book, and as they are also well organised where they do occur their instinct feelings do not figure prominently in our mental life; they are recognisable, however, I think, in what we call the feelings of self-consciousness, which accompany all effort to affect our neighbours by our actions. The objects which we try to fascinate by our self-exhibitions furnish vivid elements in consciousness.

§ 16. We may now turn to the study of the psychic correspondents of certain instinctive reactions which it is possible to treat with greater freedom because they carry with them less relation to sexual demands, although they are nevertheless, as all must acknowledge, explicable only as related to the reproduction of the species. I refer to those instinct actions, already mentioned above, which relate not to the sexual act but to that more or less permanent mating which is so important to the offspring in connection with the protection of the mother and the guardianship of those born to her.

Here we become acquainted with certain instinct feelings which we find affecting still more closely the life of the species than the comfort or welfare of the individual who experiences them.

In many cases of this type the process through which the instinct works itself out is so slow, and so many of the steps taken by the instinct-led man or woman come so clearly into consciousness, that we are often loth to acknowledge the instinctive nature of the actions, loth to agree that the mental states involved are instinct feelings at all. Moreover we are here dealing with instincts which relate to combinations of organic elements that are less closely related than in the cases thus far considered, instincts therefore which are more subject to disturbance by individual variance than those are which we have already studied. Furthermore, the instincts to which I refer, if they exist, are of the "deferred" type which do not appear until long after birth, and their expressions are therefore subject to confusion with actions determined by life experience in connection with the functioning of our imitative instinct. I believe, however, that a little thought will convince us of the truly instinctive nature of the conscious states we are now to describe.

Young men and women, as soon as they reach the age of puberty, find themselves gossiping about those of the other sex who, as we realise when we think of it, might possibly become sexual partners with them under favourable conditions. They find themselves discussing the attractions and worth of their acquaintances of the opposite sex and then giving themselves up to efforts to gain friendship with those that please them best, the young man in our civilisation usually putting forth effort in one way or another to enable him to offer the attractions of a favourable home to some one of some type who is conceived by him to be a desirable companion.

In such cases the racial end is very seldom recognised at all by those who act in the way described, and furthermore the steps in the process are so emphatic in consciousness, are so intimately bound up with our will in connection with the immediate ends which we do keep in view, that we not unnaturally hesitate to acquiesce in any statement that connects them with instinct in any way.

But why is it that at this special time of life the sight of one of the opposite sex starts up these special trains of thought and action. They do not appear in our lives in any marked form much before the age of puberty; and furthermore, after men and women have married and are surrounded by children, as a rule, these special sets of mental activities are no longer aroused in this particular way in the lives of well-regulated people, but give place to other thoughts and sentiments of which we shall presently speak. Surely this emphasis of these particular mental activities at this moment of life is due to forces which arise within the organism: and, as I have said above, when we consider the matter carefully we find that this emphasis is distinctly related to racial advantage in the fact that it has to do with the choice of mates who with the

choosers may perpetuate the species; this emphasis then must surely be held to be grounded upon the existence within us of well-organised racial instincts, however much these may be obscured by the facts above noted.

As I have said above, these actions are not generally taken account of as instinctive in origin because the thought of the immediate end to be gained is so prominent in mind, and because this end appears to the individual to be of personal importance only. The presence of the attractive young man is all that is important in the mind of the girl, nor does the lad stop to ask why he wishes to please some particular girl; nevertheless he finds his attention engrossed in all sorts of devices by which to gain her companionship. The young man does not as a rule ask why it is that he suddenly conceives a desire to work for a fortune that he may be able to marry into some special class, nor why a girl of that class is chosen by him; but nevertheless he gives his attention to the effort to gain this fortune. And yet, I am sure it will be granted, that these individual actions, the coincidents of which are so prominent in the individual's consciousness, would not exist were they not of value, in the direction already stated, to the race to which this individual belongs.

So much for the instinct feelings which are here evidently strongly emphasised in consciousness. The activities of the system which are instrumental in the production of these racial reactions are always more or less prominent in consciousness as perceptions which force our attention.

We are here dealing with instinct actions that are determined by the co-ordinated action of individual elements of a loosely aggregated racial body; individual elements less closely related to their fellow elements than

is the case with those which determine the form of the instinctive reactions previously considered.¹ We should expect then to note that if the individual be powerfully acted upon from his environment in directions which oppose these racial instincts, he will be very liable to act as an individual without reference to the racial forces by which normally he would be carried away.

We may note in illustration of this suppression of instinct feelings by elemental variant influences, how the desire for individual success as a student, or as a professional worker, or in a business pursuit, often leads the young man to repress the instinctive tendencies we have been discussing; and how the craving for social position may, and often does, prevent the realisation of these instinctive tendencies in the direction to which nature guides.

The distinction between instinct feeling and individual variant consciousness is less marked here, however, than it will be found to be in other directions; for the special instincts relative to companionship between those of opposite sexes are of so much importance to racial life that they are often kept emphatic in consciousness through long periods of life; a fact indeed which adds to the difficulty of recognising their instinctive character at all.

§ 17. Let us now consider another closely allied group of instinct feelings, which are also related to racial persistence. After men and women have married, or have become betrothed, we find appearing in them certain instinctive tendencies that vary markedly in the different sexes. The average natural man in all but uncivilised communities under such circumstances finds himself interested in home making, and, if opportunity offers, in

¹ Cf. Chap. VII. for a further study of this subject.

actual house building; his coincident instinct feelings must be quite parallel with the instinct feelings of the birds that build their nests¹ and of the wolves that prepare their cave-like dens.

The average natural woman on the other hand, under the same circumstances, finds her mind concentrated upon what will some day be of advantage in the care of children.

Both with the man and with the woman these thoughts result in the rise of trains of rational consciousness which lead them to overlook altogether the instinctive nature of the inception of these sets of acts. So far as the mere individual is concerned the companionship of the loved one would satisfy; why then do these thoughts, differing in their trend according to sex, so constantly recur to the two. Surely it is a force from within the organism which guides to something other than the particular efficiency of the two individual organisms concerned, which in fact guides to the efficiency of the race; for it certainly tends to result in the protection of the offspring that are likely to be born as a result of the union.

Here again, so lightly do the racial bonds affect us that we often see the individualistic elemental emphasis repressing the instinct actions and their instinct feelings: the desire for personal ease, the dislike of the cares that fatherhood and motherhood entail, the love of sensuous things, the unwillingness to give up the boyish and girlish plays of society life; these purely individualistic considerations often lead to the repression of those instinct feelings within us which by their recurrence would naturally lead to the establishment of homes, and to the rearing of families.

¹ Professor Lloyd Morgan, who is ever alert to trace back activities to acquired habit rather than to instinct, agrees with me here. Cf. *Habit and Instinct*, chap. ix.

At this stage in the development of our complex mental lives, the repression of the instinct feelings and the emphasis of elemental variance become more distinctly conscious and intelligent. It is by processes that are very often clearly recognised as reasoning that we learn to overthrow these racial tendencies within us and thus make our lives to vary from the racial type. The desire for personal ease spoken of above is recognised and thought of by men and women as a rational end: the avoidance of the cares of normal everyday family life is boasted of by many a bachelor as indicative of his personal astuteness in having eschewed matrimony. Evidently, here we see very clearly the relation of intelligence, of reasoning process, to elemental variance.

§ 18. In closing this study of the instincts which relate to the persistence of species, I would ask the reader to note again that in the life of organic individuals, as we have already seen, primary action in response to stimuli from without upon the cells is in general subordinated to secondary actions tending to produce efficiency of the individual, in case the two are not thoroughly adjusted to the same end. And in similar manner the tendencies to individualistic reaction are in general subordinated to actions tending to bring about the persistence of the species in case the two sets of activities are not thoroughly adjusted to the same end.

III.—INSTINCTS RELATING TO THE PERSISTENCE OF SOCIAL GROUPS

§ 19. The instinct actions we have been studying thus far have all related either to the persistence of individuals made up of organic aggregates, or else to the persistence of the species to which these organic aggregates belong. But if we examine the habits of animals of higher grade we find evidence in them of the existence of instincts that seem to relate not to the welfare of the individual organism, nor more than very indirectly to the persistence of its kind, but that do relate clearly to the welfare of aggregates of individuals, to the welfare of tribes, of social groups of greater or less complexity and size.

Moreover, what we find thus in many of the more highly organised animals we find also in man, viz. instinct actions which lead individual men to work together, not for the advantage of the individuals themselves at all, nor for anything that appears to further directly man's persistence as a species, but which do guide the individuals to act in ways that are clearly of value to the tribal aggregates of which they are elements; instincts which, nevertheless, thus indirectly further the persistence of their species, and bring, although still more indirectly, advantage to the individual and to the special parts of the individual.

We find protective action accomplished in this way which would not be possible did the individuals of the tribe act singly; of this we have example in the attacks in combination that are made by all the more highly organised animals: bands of ants defend themselves thus from their enemies; wolves make attack as a pack upon larger beasts of prey with which they could not cope singly; and man

himself thus keeps in control, or overpowers, those other men whom he counts as his enemies.

Again, we find instincts leading on the one hand to combination in the search for food, as shown in the wolf pack as it attacks the buffalo herd; and, on the other hand, combinations of a diverse kind tending to defensive tribal action, of which we have an example in the herding together of these same buffalo to resist these attacks from the wolf pack. In man we see similar offensive and defensive action. That all these actions are in their main trend organic, instinctive, non-deliberative, I think will be granted without argument.

We find the natural appearance of many kinds of action which imply great specialisation of work and which, therefore, involve mutual aid amongst individuals, tending directly to tribal, and only indirectly to individual advantage. The specialisation of work for tribal advantage is, of course, most clearly exemplified in the life of man; but we discover a very close approximation to our own instinct actions of this type, not only in many of the higher animals, but very distinctly even amongst the insects: indeed, we find one of the best examples of such actions in the life habits of the bee tribe, in which the drones do their appointed task, the queen bee and the developed males perform their special functions in the tribe life, all in co-operation; and all these actions, we note, tend to the protection and furtherance of the tribal life.

Here, again, we see how very indirect is the relation between the instinct action and the welfare of the individual; and how still more indirect the relation between the instinct action and the welfare of the parts of the individual that are affected by the stimuli from the environment. The stimuli from the environment must

first tend to produce certain specific actions in the organs which are directly affected ; these actions in the elemental parts, if they are not perfectly adapted to the welfare of the individual, must be modified by influences from the individual. Again, these actions, as thus modified, if not completely in accord with the advantage of the tribal aggregate must, in their turn, be modified by influences which lead to tribal rather than individual efficiency.

These influences are highly complex and indirect in their means of producing effects, and hence are likely to be slow in reaction ; and this would lead us to expect to find in connection with this class of instincts, clear evidence of tendencies to hesitancy and choice, resulting primarily in elemental, and later on in individual variance ; for oftentimes if the stimulus reaching the individual were powerful, even if the organ stimulated did not tend to react for itself without regard to the organic individual of which it is a part, the individual would surely be likely to react as an individual without waiting for the more complex, and more slowly acting, tribal influences to modify his action. This expectation we find realised. The wolf, tempted by some bit of rich booty which he has discovered, will desert his pack in the combined attack upon the buffalo herd. A heavy blow may frighten an individual wolf and lead him to desert the pack that attacks an enemy. I shall not enlarge upon this point here with reference to man's action, for I refer to that at length below.

When we considered above the instincts of individualistic import, we saw that they could scarcely have arisen and have come to endure unless on the whole it had been more advantageous for the elemental part to act as a subordinate part of the organism, than to act as an isolated element. So here we see that it is very difficult to conceive how these instincts of social import could have arisen, and could

have come to endure without subordination of elemental individual life to racial life, and equally difficult to understand how this subordination could occur unless the elementary parts of the individuals, and also the individuals themselves as elements of the social body, were on the whole better adapted to continued existence in their environment as parts of the tribe whole, than they would be as elements or individuals existing in isolation.

This parallelism between the instincts of individualistic import and the instincts of social import not unnaturally suggests to mind that the tribal or social aggregations of which we have been speaking may themselves be of an organic nature similar to that which we note in the case of the individual organisms which we have been studying; the organism in the case of tribal life being, however, of a more complex order; one in which the individuals are elements even as in the individual itself the special organs or the cells are elements. This conception we shall discuss at some length in the seventh chapter. Suffice it to say here that we shall find reason to agree that the conception of social life as organic cannot be lightly cast aside; but that whilst we are compelled to look upon social aggregates as organisms, nevertheless they appear as organisms of a very low type indeed.

§ 20. The conception of social life as organic, of the social body as an organism even though of low type, will aid us, I think, in the continuation of our study of the instincts relating to tribal persistence, in treating finally of a group of instinct actions of the most complex form, which are doubtless of the latest development, and which, although appearing at times in some completeness in all the higher mammalia, are best exemplified in the life of man: I refer to certain very complex actions which tend

to produce tribal advantage, which are undertaken without apparent reference to individual values and without direct reference to persistence of the species in which they appear, but often indeed in opposition to both individual advantage and to persistence of type. I shall refer to the expressions of the instincts of this class but briefly: their psychic correspondents are so prominent in our mental life that detailed consideration of them will naturally appear in later sections.

We have, for instance, instincts which lead men to lay aside all the delights of home life, to give up personal comfort, to become careless of their property, to let their families shift for themselves, all in order that they may join with their fellows in fighting against a common tribal enemy.

We find men instinctively restraining their wide sexual instincts and living monogamous lives, such actions bringing no value to the individual, nor directly tending to persistence of species, but apparently leading to tribal advantage, and thus in a special but indirect way to the persistence of a special type of the species and of the individuals of that type.

We note men who, rather than resort to murder, suffer personal loss which might be averted by the killing of a human enemy; we find them enduring privation and even the pangs of hunger, which might easily be avoided if they were willing to take that which belongs to their neighbours; and clearly both of these inhibitive instincts relate to the perfection of tribal life, not to individual welfare; nor more than very indirectly do they refer to the persistence of species.

We find men helping wounded companions at the risk of their own lives, and sparing no pain nor labour so long as they can thereby aid one of their kin.

We find, finally, a group of instincts which function apparently altogether to the emphasis of social consolidation. Those instincts which enable a man to attract others to him by his rendering of useful service to them, *i.e.* those which we speak of as the benevolent instincts; and those which enable him to attract others to him by his production of works which bring them pleasure, the highest elaboration of which, as I have argued, we find in the art instincts.¹

These instincts also are evidently worked out for the most part without reference to, and often in opposition to, the advantage of the individual, and to those courses of action that tend towards persistence of our species.

As the tribal combinations become more thoroughly consolidated, and the relations between individuals in the tribe more fixed and intimate, we find the existence of instinct actions in groups which seem to have less significance for these groups than they have for groups of groups.

Some critic who agrees with Professor Lloyd Morgan may say that I am here discussing many habits of action which are not congenital and hence not instinctive. I agree fully that all these habits are greatly modified by the experience of life, and that indeed from within the social environment only can appear the stimulus essential to the rise of these activities; nevertheless I think it must be granted that the tendencies to the main drift of these activities are born in us and are truly instinctive, although they are of the deferred type, and although they are profoundly differentiated by the surroundings of the man expressing them. This becomes clearer when we study their psychic effects in the following sections.

¹ Cf. my *Pain, Pleasure, and Aesthetics*, p. 98 ff. Cf. also Professor J. Sully's suggestion (*Mind*, N.S. No. 15) that the community of individuals in the very admiration of works of art is a powerful indirect aid to social solidarity.

§ 21. Let us turn from this brief objective study of this group of social instincts to a consideration of their correspondents in our conscious life.

In correspondence with the instincts which we have described in Section 19 we find ourselves conscious of impulses leading us to act for the protection of tribal interests; it is because of this instinctive tendency, for instance, that such large numbers of men in our time find it in them to defend on non-selfish grounds those enormously complicated systems of governmental protection of commercial interests which to-day give rise to the most fervent of party contests in political life; and this notwithstanding the evidence that, for the most part, these systems are based upon the strife for gain and are intrinsically demoralising. This is an instance of a very highly differentiated type, but one that will appeal to all students of modern life; simpler examples without number will occur to the reader.

We find natural conscious impulses leading men to work together in the acquisition of food-supply or of other goods; and in contending for the protection of tribal or class properties or advantages.

We find naturally arising within us clearly conscious impulses which lead different men to assume with enthusiasm those specialisations of work which are so important for the existence of our modern tribal life: some young men naturally long to become ranch-men and farmers; the ambition of others leads them to undertake the soldier's vocation; others find themselves drawn to the practice of law or of medicine; others to the artistic professions; and others still to special lines of business: and in very many cases these wishes can be traced to no influences upon the individual life from the lives of those around them; special tastes have evidently been given the individuals with their bodily structure.

§ 22. Let us now consider some of the correspondents in consciousness of the tribal instincts of a higher type mentioned briefly in § 20 above; instincts which emphasise the conception that our social life of to-day may be the beginning of the evolution of a social organism which is as yet in its early stages of development.

Under certain special conditions of stimulation, *e.g.* upon hearing of aggressive action by our neighbours among the nations, or upon noting opportunity for tribal aggrandisement, there arise in us the mental states which are roughly grouped together under the name of the feelings of patriotism; impulsive states which lead us, in common with our neighbours, to complicated sets of acts, defensive and offensive; states which clearly have usually little individual significance, which are very seldom thought of as tending to the persistence of our human species, but which are easily recognised as having great significance for our tribal community. The acts that are set up are purposeful, and at times have their inception in thoughts which seem individualistic, concerned as they are with the protection of, or the glory of, what we feel pride in calling our own country: but the persistence of the notion of action for the country's good is surely altogether determined by instinctive forces, and the actions that result can clearly be none other than "instinct actions," their conscious correspondents none other than "instinct feelings."

The man will lay aside, with regret indeed, but without hesitation, the well-recognised joys of home, and all sorts and kinds of personal advantages; will leave behind him, alone, afflicted, and unprotected, those whom he loves; and in place of comfort and joy will undertake hardship, endure loss, and face danger, under the pressure of these dominant impulses within him. Surely nothing relating to individualistic values, nor to persistence of species, can account

for the common wish for greatness of empire which we find the lowly citizen considering ample reason for his sacrifice of self and of his family interests, nor for the enthusiasm which is felt for leaders who add to the national glory.

That we are dealing with feelings corresponding with true instincts becomes perfectly clear, it seems to me, by observing certain cases of tribal aggregation of long standing, where division of labour has become more complete, where, as in parts of India and China for instance, some special caste of warriors has come into existence. Then in other castes we find that impulses to patriotic action have almost lost their force, and that the conditions which normally stimulate the man of western parentage to enthusiastic devotion to his country's needs appear to bring no similar sense of obligation to the one whose life has always been devoid of thought of fighting for more than his own occasional individual need. It is stated that in the late Chinese-Japanese war the labourers continued their work in the fields while fighting battalions were near at hand, the labourers themselves taking little interest in the contest or its outcome so long as they were not in immediate danger.

§ 23. At this point let us again note that under certain conditions of stimulation the individual variant force may become so powerful as to overmaster the racial force within us. The thought of personal loss, of personal danger, may become prominent in the citizen's mind and then the man's tribal instinct feelings may fail him altogether, and he may become what his fellows call unpatriotic.

Here our reader easily perceives that the intelligent, the rational, nature of these variant actions comes into prominence; for it is not only the man who is overcome by personal fear who fails in patriotism, but also the man who reasons with himself that his personal affairs are of too great

moment to warrant the possible sacrifice of his life for the good of his country; indeed, large numbers of men in our modern communities often self-sophisticate themselves under such circumstances until they bring themselves seriously to believe that they can serve their country better by remaining at home than by entering the armies as volunteers.

§ 24. The particular instinct feelings of tribal importance which we have just studied have indeed their special significance for tribal existence, but they have still to some extent individual significance as well. For instance, patriotic feelings pure and simple are aroused upon thought of danger to the tribe, and although patriotism of the highest type has in it no selfish element, still in ordinary cases the danger to the individual himself whose patriotism is aroused cannot be wholly separated from the man's thought, and it must ordinarily be emphasised if we wish to strengthen the impulses of the masses to self-sacrifice for their country's need.

But in this section I shall turn to the study of another type of instinct feelings, and of those psychic states related to them; feelings which have no individualistic significance whatever, which lead us often to act knowingly in opposition to what seems to us to be our own direct personal advantage, and which will be well recognised as the mental states connected with our ethical life.

Here we have to do with instincts involving the most complex of bonds between individuals; instincts which result in actions that are of benefit to others rather than to ourselves, and that are concerned in that social consolidation which would be impossible without mutual aid. As these instincts are of relatively late development, and are therefore not likely to be thoroughly co-ordinated, we should expect to find their instinct feelings sharply distinguished and

easily recognisable in consciousness. But especially should we expect these tribal instinct actions to appear in opposition to well-grounded individualistic instincts, and we should thus expect their psychic effects, and the psychic side of the individualistic instincts that are opposed to them, to be most emphatic in the form of impulses, which, as the reader will see in Part III., are the psychic coincidents of the inhibitions of instinctive tendencies. That this view of the nature of impulse is correct is indeed evidenced in the clearness with which we note the oppositions which bring into evidence the impulses in this more complex mental life.

Few men, even the best of us, fail to recognise the tendency to possess ourselves of that which would not come to or belong to us in the nature of the circumstances which surround us, and yet which we think it would be of advantage for us to gain. In its completed form this tendency would result either in stealing, which in its incipient form brings into our mind the impulse we call covetousness; or else it would result in attempts to gain advantage for ourselves, directly or indirectly, by misrepresenting the truth,—by lying. But fortunately in the man of higher type we find these impulses brought into consciousness (controlled, we say), by the very fact that opposed impulses rise in conjunction with them and lead us to avoid taking what is not evidently our own, to oppose covetousness, and to consider lying contemptible.

Clearly this psychic opposition to the impulse towards stealing and towards lying has no relation to our own individual welfare. In our complex civilisation it is indeed strengthened by our thought of customs and laws which will entail punishment upon one who thus offends against them; but in the higher type of man, the opposition to the thought of stealing or lying seems clearly to be ante-

cedent to any thought of punishment; the law is in fact determined by the existence of the impulse: it must be granted, I think, that these oppositions are of a distinctly instinctive character.

In like manner, the natural individualistic impulses to kill our enemies, and to commit sexual excesses, are thwarted by repulsion to murder and to adultery; repulsions which themselves bring immediate individualistic distress or disadvantage. These repulsions are indeed emphasised by penalties of law, acquiesced in by the people, and enforced by commands of ethical teachers who for the most part speak as the prophets of God; but they certainly arise in the minds of men of the higher types in advance of any question of individualistic disadvantage to be indirectly resultant if one succumb to the individualistic craving.

It is clear, then, that these ethical impulses against theft, lying, murder, and adultery are of an instinctive nature, although they are evidently of a late type and have arisen only co-ordinately with the advance of the higher civilisation.

It is equally clear that those in whom the impulses to theft, lying, murder, and adultery become irrepressible are of an atavistic type, men whose organisation has reverted to the forms found in their ancestors who lived before social life in its present form had developed. It is acknowledged by all that it is a clear mark of atavistic and morbid tendencies in an educated man in our time if he allow suggestions of theft and murder to be so constantly recurrent as to warp his thought and influence his standards. It is not so commonly acknowledged, but it seems to me that we must hold it to be equally true, that the man is of atavistic and morbid type who finds his thoughts persistently turned to the consideration of sexual relations; who allows his individualistic impulses towards sexual

gratification to dominate his life so that he comes to consider adultery a minor offence; who finds his standards warped by emphasis of the individualistic as against the social impulses in this direction.

When we turn to the study of the psychic coincidents of those instinct actions which in § 20 were seen to relate to mutual aid, we at once recognise within us the wide-reaching feelings of sympathy and pity. Sympathy and pity are certainly not induced within ourselves because we conceive that they may induce like feelings in others who may help us in the future day of our need: they arise spontaneously and in advance of any consideration of any possible individualistic advantage to be obtained in connection with them.

Of the same nature are those benevolent impulses that lead men to help others of their kind, or to do good to them.

In all these cases these ethical, social, impulses tend to bring no immediate individualistic gain, but usually some disadvantage or even distinct loss. In fact when they are morbidly developed, as they are in many cases, we see the fanatical philanthropist aiming to produce in others what is for them clearly a happiness of a higher order than that which he himself possesses, by processes through which he actually subjects himself to distinct individualistic privation.

It is true that the satisfaction of the benevolent impulses within them brings pleasure to those of philanthropic temperament, but I do not think any one would claim that this pleasure is the basis of philanthropic action in the mass of mankind: we are surely dealing here with impulses which are of instinctive, organic, origin.

And here in the action of the individual elements of the higher social life we have an exceptionally clear correspondence with the action of the parts in the lower indi-

vidual life. As in the body, the special organ becomes so modified in its development that its elemental action, which brings pleasure, may be that which is normally of advantage to the whole individual organism; so here in the higher social organism, the individual man who is an element in the social aggregate, comes to act with pleasure in a manner which under ordinary circumstances will be of value to the social body.

And here also as with the individual body, where the conditions surrounding the social body are abnormal, the individual's actions, which normally would be of advantage to the social organism, become a source of danger to the social organism as a whole. Sympathy and pity and benevolence, which are normally of value to our race, are thus often showered upon criminals whose thoughts and impulses are recognisedly opposed to social consolidation and social advance.

Before passing to our next point, I must mention as especially noteworthy examples of the impulses we are studying, those impulses to artistic expression which correspond to the art instincts which, as we have seen, function in the direction of social consolidation. Here the impulses, as felt by the true artists, are notably separated from any consciousness of individualistic gain to be reached, are worked out evidently for their own sake and with no notion whatever that they function, as they do, towards the creation of sympathy by the production of attractions which directly and indirectly go with pleasure-giving. That they often work themselves out in connection with distinct individualistic disadvantage must be clear to any one who considers the hardship so generally connected with the lives of those devoted to the worship of the Muses.

§ 25. Enough has been said already to emphasise the racial, instinctive character of the higher forms of impulses, patriotic, ethical, benevolent, artistic, which we have been considering; but it will be well perhaps to say a few words more concerning the prominence of these impulses in consciousness. This prominence is due, I think, to their indirect application to the ends for which they are formed, and to the complexity of the organisms in which they appear.

The lower forms of instinct we find normally brought into action by relatively definite stimuli, and reacting in relatively clear-cut definite ways to those stimuli: but the instincts we have just been considering are formed to act, not for the benefit of the cells of an aggregate, nor for the benefit of the aggregate itself; not for the benefit of the parts of an organism, nor for the benefit of the organism itself; not even for the benefit of the individual as a part of a tribal aggregate, but for the advantage of the tribal aggregate itself. Here evidently Nature is concerned to deal with a most complicated problem; for in our much differentiated life exactly the same sets of circumstances can seldom recur, and the reactions to the ends we are here considering must therefore be of very varied kinds; this difficulty can only be overcome by the instinctive persistence of certain *tendencies* which are adaptable to the varying circumstances.

If, for instance, some specialised form of effort alone were needed to perfect the tribal co-operation or protective reaction, we may easily see that we might gain little more in consciousness from the feelings of benevolence or of patriotism, for instance, than we gain from the functioning of the stomach when food-supply is given to it. But Nature's end is here subserved only by the persistence of certain trends of action in connection with a great variety

of subordinate activities, and in the very nature of our mental life the psychic counterpart of these varied activities is likely to become prominent in consciousness. The same is true of all the other complex and varied instinctive activities in individuals, which we have above discussed, the trend of which leads to tribal advantage.

But it is to be noted that the general trend does not come directly into consciousness except in contemplative reflection. The man who goes to war fights in company with his comrades to win his cause, and finds his mind filled with thoughts of strategy, of means of defence, of methods of attack; the instinct which leads him to take up these activities does not often appear in mind whilst he is occupied with these actions: little does he think of the value of his actions to his nation as he fights. So it is with the benevolent instinct: the philanthropist finds his mind filled with thoughts of ways and means, not with consideration of the advantages for the race of which he is a member that are involved in his actions: the average philanthropist, in fact, will scorn to conceive of his action as having any such end at all, and the philosophic philanthropist gains sight of this end only in the cool hour of study. So separated indeed are the two series in consciousness that the man who thinks sufficiently of the trend of his instinctive actions is liable to lose the force of the impulse which the instinct determines: the man who is to do the most effective work must, during the time of urgent action at the least, abandon himself to nature's guidance, keeping his attention upon the actions immediately before him: and this is true of the warrior, of the philanthropist, of the ethical teacher, and of the artistic master.

§ 26. At this juncture let me note that here again as in the cases studied in the preceding sections the racial

actions are brought out by individual activities that usually correspond with notably emphatic perceptions in consciousness : and that here also, under special conditions of marked stimulation, the individualistic ideas at times become predominant and, overcoming the tribal impulses, carry the day.

Excessive anger (of individualistic import) may lead to murder, notwithstanding all the racial safeguards with which the law and the teaching of the Churches endeavour to enforce the instinct that commands us not to kill : so persistent is the killing instinct within us, indeed, that the average man does not hesitate to act out this instinct upon the wild animals ; and, as is the case with the exercise of all instincts that have been inhibited, gains immense pleasure in this killing, which he dignifies by the name "sport." It is to be noted also that exercise of the instinct to kill leads to such an enforcement of the instinct itself that the opposition to the murder of fellow-men becomes less emphatic and effective ; this is exemplified in the lives of the pioneer in savage lands, of the soldier who has been at war, of the revolutionary debauchee after the public exhibition of execution by the guillotine.

In similar manner intense personal passion may lead to exhibitions of licentiousness ; and habitual licentiousness in youth leads often to failures of marital faithfulness in after-life.

So also the demands of excessive hunger may lead to theft : and self-interest may break down bonds of sympathy, may harden a man's heart, may render him altogether careless of acting for others' welfare or pleasure.

Finally, beyond the mere overthrow of the racial instinct by the individualistic one under the stress of stimuli that naturally bring the latter into prominence, with these in-

instincts that are not expressed by thoroughly fixed reactions we have exemplified most fully the action of individualistic variation through the effects of reasoning. It is in this region of mental life that the thought of ends comes into prominence, that hesitancy is most fully developed, that choice is in evidence: it is here that reasoned action is most marked and that rationalistic processes have full effect upon active life.

The man who is tempted to murder may argue that the world will be better without his enemy; that he himself at all events will probably not be suspected, or will escape; that on the whole it is worth while for him to give way to his individualistic wish. The seducer may sophisticate himself until he believes that the woman for whom he has conceived a passion will not be injured by his act; that at all events no damage to the social fabric will occur if reasonable care be taken by him in his action. The forger may convince himself that all the property he wishes to take has in the past been gained by the ancestors of the present possessors through oppression and theft, and that he has as much right to it as his richer neighbour. The man who would harden his heart against poverty and suffering finds it all too easy to emphasise the dangers of indiscriminate charity, and tends to class all cases that are brought to his notice as "unworthy."

But beyond such cases as we have above cited, where self-sophistication comes clearly into play, we have in this region of the less well-organised instincts the realm in which serious hesitancy and sincere doubt are felt, and are habitually solved by what to him who hesitates and doubts seems to be rational argument and valid conclusion. Of this tendency to variation by rational process we shall make an especial study in later chapters, and as we shall there find it needful to give ample illustration I do not

think it necessary to enlarge upon this point further at this moment.

§ 27. In preceding sections we have noted that in the individual life the primary action in response to stimuli from without upon the cells is in general subordinated to secondary actions tending to produce efficiency of the individual, in case the two are not thoroughly adjusted to the same end; that in a like manner the tendencies to individualistic reaction are in general subordinated to actions tending to bring about the persistence of the species, in case the two sets of activities are not thoroughly adjusted to the same end. And so here in the social life the primary action to which the individual would tend in response to the complex stimuli from without, subordinated as it is in certain relations to actions tending to bring about the persistence of the species, is in its turn on the whole subordinated to actions tending to produce efficiency of the social complex, where the sets of actions are not thoroughly adjusted to the same end. Unless this were true we can see no basis for the establishment of the instincts of these higher orders. Of this I shall speak more at length in the next chapter.

§ 28. In what has preceded, I have studied instincts in three groups or classes; and the reader will agree with me, I think, that the instincts thus treated make up a very large proportion of those which we observe in our own lives and in the lives of animals.

But it would be incorrect to suggest that these great groups include all the instincts developed in the higher animals. The so-called "imitation instinct" may be mentioned as an example of an instinct which is not thus classifiable. Possibly this instinct may be found to be

merely the marked and complex development of a very fundamental mental and neural tendency, as Professor J. Mark Baldwin appears to suggest: but it seems to me that the complex imitative tendencies which we recognise in our lives are of complex instinctive type,¹ and are emphasised by Nature because she is able to use them for purposes of biological experiment in her vast laboratories: at all events they do not appear to me to be identical in their essence with that "circular process" which Professor Baldwin would have us call "imitation," and which he has shown to be determined, to a great extent at least in its beginnings, by self-imitation.

I am free to confess, however, that I fail to note any large number of important instincts which cannot be included in one of the three groups we have studied. I do recognise, nevertheless, a fourth class of which, however, few examples are prominent. This fourth class is made up of instincts which deal with the regulation of relations which it is advantageous to foster between the instincts already formed.

Clear examples of this type of regulative instinct are found in the imitative instincts above considered and in the "play instinct." Plays are occasioned by the diversion into certain relatively definite channels of surplus, so called "spontaneous," energies, which have resulted from hypernutrition, but which have been given no opportunity to express themselves in actions. Nature has formed within us tendencies to divert these energies into channels that give practice in directions in which skill is, or will presently be, of value to us. It is a commonplace that the plays of children make them ready for activities

¹ Professor C. Lloyd Morgan appears to be in agreement with me on this point (cf. *Habit and Instinct*, p. 181), so also Professor William James (cf. *Psychology*, vol. ii. 408) and Karl Gross (cf. *Die Spiele der Thiere*, 72).

of after-life: the girl's plays with dolls tell of future maternal activities, the boy's plays correspondingly tell of the world's battles he is to wage, often indeed reflecting the actual physical contests in which he would take part were he not held back from barbarism by the civilisation in which he lives. In like manner the plays of mature men and women lead them to practice in directions which are likely to be advantageous to them in every-day life.

The above paragraph is printed as it was written early in 1896 and published in October of that year in *Mind*. I might have considered it worth while to develop the thought more fully here had not Karl Gross in his excellent *Die Spiele der Thiere*, published since the writing of this paragraph, expressed the same view and defended at length the position I have taken. I refer the reader to this book if he wish to study this point in detail.

I mention this fourth class of instincts here particularly because, as the reader will discover later, I shall endeavour to show that Nature has built up in us a most noble instinct of powerful force which cannot properly be placed in any of the first three classes above described, but which I shall endeavour to show functions solely for the regulation of those relations existing between the instincts of these classes which it is of the greatest advantage to emphasise.

CHAPTER VI

OF CERTAIN RELATIONS BETWEEN INSTINCT GROUPS

I.—THE ORDER OF THE RISE OF INSTINCT GROUPS

§ 1. IN the chapter preceding this we have noted that a large proportion of the instincts found in the higher animals, and in man, if studied objectively seem to fall naturally into three great classes: viz.—first, those instincts that tend to bring about the persistence of individual life; second, those that result in actions favouring the persistence of the species to which the individual belongs; and third, those that tend to bring about the persistence of certain aggregates of individuals which we call social groups.

I have also referred briefly to the fact that the instincts of the second class are built upon, and as it were out of, already existing instincts of the first class: and in like manner that the instincts of the third class are formed later than the instincts of the first and second classes, and that their forms are determined to a great extent by the earlier existence of the instincts of classes 1 and 2. That this is true is indicated by certain facts to some of which I have already referred incidentally, but to which I would here ask the reader's more careful attention for a moment.

A

§ 2. Let us consider first the relation existing between classes 1 and 2, between the instincts which relate to

individualistic advantage and the instincts which relate to reproduction of individuals of a given type, with especial reference to the view that the individualistic instincts are primary, and those relating to reproduction secondary in their genesis.

In the first place let us note the evidence presented in connection with the fact, now generally conceded, that the development of the individual man from birth corresponds in a broad way with the development of the race to which he belongs, so that in general the rise of capacities in a definite order in the course of individual life indicates that the race in the course of its development has gained these capacities in a corresponding definite order.

It will be acknowledged that the child at birth, so far as we can judge from its expressions, is a purely individualistic animal: its instincts one and all lead to the attainment of nourishment and to such functioning as is necessary for mere existence. Later on in its life appear the general excitements of the joyous emotional type, and the shrinking of dread and sorrow, and the actions indicative of fear and love and anger, all of which, as we have seen, are the expressions of self-protective instincts. Together with these appear also many complex self-protective actions which conserve life and preserve health. All of these are instincts of individualistic import.

It is not until years have passed that the instincts which relate directly or indirectly to sexual reproduction appear, and it is therefore clear that in the life of the human individual at least these sexual instincts are secondary in genesis to the instincts of individualistic import, and that consequently they must involve entirely novel activities, or else must be influenced by, or must themselves determine modifications of, those instincts which already exist at the moment of their first appearance.

The love of parents and friends, and of advantageous things in general, develops into sexual love, but not until the approach of puberty; and still later only appear the instincts which lead less directly to the conception of new lives and more directly to the protection of these new lives through their years of weakness.

From a biological point of view it is not difficult to interpret these facts. In the individual organism we find special organised parts, each of which through the processes of evolution has come to function under normal conditions, so that while acting to its own best advantage *as a part* of the individual organism, it at the same time acts to the best advantage of the individual organisms *as a whole*.

These functionings for the benefit of the whole organism mark the existence of the individualistic instincts; and, as I have already noted, we have much evidence gained from the lower forms of life, that in the earliest types of organic aggregation the individualistic instincts were alone developed, the organisms being of such nature that individual existence was all-important to them in a biological sense. In certain cases the presence of other individuals of the same type would even be a disadvantage to any special individual we may choose to consider; for instance, in cases where the supply of nutriment in the environment was limited. At all events, the presence of other individuals of the same type would be of no advantage where co-operation was not possible, and especially where it was not of necessity to the continuance of the type; for, as we have seen, these low organic forms are able to reproduce their kind by mere division of the individual parent mass.

It is true that very early in the development of animal life we find rudimentary reproductive systems and rudimentary sexual processes by which continuance of type is determined, and this through actions which are dependent

upon the coexistence of separate individuals; still in these low organic types we note many forms of reproduction without sexual differences or relations; and many which are independent of conjugation between different individuals; and in certain types where sexual reproduction is possible, and sometimes where it is usual, we find it often replaced rhythmically or irregularly by non-sexual reproduction, which latter makes the individual self-dependent in this propagation of its kind.

There is much evidence leading us to conclude that these low-type organisms are of forms which date back to ages beyond our clear conception; and if this be true, it appears probable that individual organic life, with inherent power of reproducing its own kind, long persisted before the slight advantage gained by sexual differentiation began to make the existence of different individuals of importance, and dependence of one individual upon another necessary, if the type were to persist. And during this long period the organisms we are considering must have been self-dependent individually; in them must have arisen the germs of many instincts which related only to individual persistence.

This is made clear when we note certain of the lowest types of organisms that can be examined under the microscope, which habitually reproduce their kind without conjugation of any kind, but which show nevertheless many differentiations of individualistic instincts. The *Acinetæ*, for instance, one of those minute forms known as the Infusoria, as Huxley tells us,¹ "multiply by simple longitudinal fission," or by "the development of ciliated embryos in the interior of the body." "The *acinetæ* have frequently been observed to conjugate" indeed, "but it has not certainly been made out whether this process has, or has not, any-

¹ *Anatomy of Invertebrate Animals*, p. 94.

thing to do with the process of development of ciliated embryos just described." Yet these animals, capable thus of reproducing their kind by simple fission, have developed most complex individualistic instinct actions.

They put out from their bodies delicate tube-like tentacles, which upon occasion are stimulated by the movements produced by an individual of some other type of infusoria which is the normal prey of the organism. The cells of the tentacles first react as is best suited to their mode of functioning; but then, secondly, we perceive a general activity of the whole organism, and this with reference to the organic advantage and not with reference to the advantage of the cells that are first stimulated. "The knob-like ends of these tentacles, which come into immediate contact with the surface of the entangled prey, spread out into disks, and adhere fixedly to it. When many of the tentacles have thus attached themselves, the imprisoned animal is no longer able to escape, its movements become slower, and at length cease. Those tentacles which have fixed themselves most firmly, shorten and thicken, and draw the prey nearer to the body. . . . Suddenly, as soon as the sucking disk has bored through the cuticula of the prey, a very rapid stream, indicated by the fatty particles which it carries, sets along the axis of the tentacle, and, at its base, pours into the neighbouring part of the body of the *Acineta*. . . ."¹ Thus the organism gains its nourishment within its body in position to be acted upon by those cells which have become differentiated to perform the assimilative function, and to distribute the nourishment to the other cells active in other service for the general benefit.²

¹ Stein, quoted by Huxley, *Anatomy of Invertebrate Animals*, p. 93, note.

² Some reader may here raise the objection that the apparently selective attraction existing between the cells of elemental life, what is known as "erethism," and which exists before any individualistic instincts are formed,

An individual organism, then, so long as its life form may continue to persist without aid from any other individual organisms of like species may, and as we have seen does, develop many complex individualistic instincts. But in a complex organism which is in process of attaining the power of sexual reproduction these individualistic instincts, already acquired, must be so modified that while under normal conditions they act to the protection and persistence of the lives of the individuals in which they appear, nevertheless they act at the same time to produce in that individual efficiency to reproduce its kind; for those individuals in which these individualistic instincts were not thus modified would suffer in the contest for survival when the attainment of sexual capacities had become of value.

The correctness of this interpretation, and of the notion that the instincts relating to reproduction are secondary to the individualistic instincts in their genesis, is evidenced furthermore in many other ways. It is evidenced by the fact that the purely individualistic instincts deal with ends of more immediate significance, sustenance from day to day, protection from moment to moment; ends which the higher animals may possibly realise and which must have been patent to the primitive man at a very early period in his history; and by the corresponding fact that, on the other hand, those instincts that relate to the reproduction of the

is the very basis of the later sexual attraction. But it is to be noted that this attraction exists between elemental cells and is fundamental to the formation of all organisms; that after such formation then these organisms acquire traits of various kinds, among them instincts tending to preserve life in the individual, and also (and later) instincts tending to enable these persisting individuals to bring into condition for fecundation the cell parts which have to do with the development of new individuals. Surely the most that can possibly be claimed is that the process of "erethism" noted in low forms of organisms may be identical with this final process of fecundation in the special cells buried within the bodies of the higher forms of animal life; but as surely it would be stretching an argument by analogy to any illicit extreme to claim that all the complex accompaniments of the sexual act are direct and peculiar derivatives from this special process of "erethism."

species deal with far-off ends which at the time of sexual action are not realised by the average human individual even to-day, which were probably not at all realised by man until a late period in the history of his development, and which are almost certainly never realised by the animals. It is impossible to suppose that the bitch realises that there is any relation between the birth of her litter of puppies and the sexual relations with a dog months before, of which she probably has at most but the dimmest reminiscence at the time the puppies are born. These facts surely indicate that the actions for individualistic benefit are primary and the actions tending toward racial persistence secondary. For the first formed instincts would evidently be those which functioned in answer to constantly recurring needs; only secondarily would those instincts be formed which through trends of action guided to the production of other results than those to which the instinctive act directly led.

Our contention is further supported by the fact that the sexual instincts differ in the two sexes, a fact which indicates that they are differentiations of a common stock; whilst the individualistic instincts on the contrary are in the main the same in both sexes, which indicates that they have a simpler, earlier origin. Furthermore, the individualistic instincts appear in full force in cases where the sexual instincts are aborted, as with sterile hybrids and the neuter individuals of many insect tribes; this again surely indicates that individualistic instincts are primary and sexual instincts differential and secondary.

We note furthermore the fact that the individualistic instincts are more persistent than those that relate to sexual reproduction. The demands for sustenance and for the protection of the individual's own life are more urgent than the demands for sexual activity; under extreme danger, or

extreme hunger or thirst, the sexual demand disappears, or is inhibited or deferred, until the demand of individualistic import is satisfied. This clearly indicates that the individualistic instincts are of primary, fundamental, importance.

We note, moreover, if we consider man alone, that the sexual activities are much more vividly effective in the alteration of our conscious life than are the activities relating to individualistic efficiency. These individualistic instincts are in large part carried on almost reflexly as we say; in other words, they affect the complex ego, the field of inattention, rather than the field of attention which appears as an increment to the fulness of this ego. The sexual instincts are less thoroughly co-ordinated in our lives, produce distinct disturbances of our ego-hood, and of the field of vivid attention. All this indicates that the sexual instincts are of later formation than the fundamental individualistic instincts, for time is recognisedly an important element in the production of that thorough co-ordination which leads to the loss of effect upon consciousness above mentioned.

§ 3. At this juncture let us recall a point made briefly in the last chapter, viz. that the instincts which relate directly to conjugation generally appear earlier than those more complex instincts which relate to pursuit and the attraction of mates; but especially that still later than these latter appear the instincts which are much less directly related to the persistence of species, viz. those instincts which relate to permanent mating and to the protection of the mother and her young.

These last-mentioned instincts are so far separated in development from those that relate directly or indirectly to the sexual act that they deserve to be considered as a

sub-class under the main group of instincts that relate to the persistence of species.

Of the instincts relating to the persistence of species we have sub-classes.

- A. $\left\{ \begin{array}{l} x, \text{ Instincts relating to the act of conjugation.} \\ y, \text{ Instincts relating to pursuit and attraction of mates.} \end{array} \right.$
- B. Instincts relating to permanent mating, to the protection of young, etc. etc.

The instincts of this last class B have to do with a developed race which persists not so much because it is able to reproduce many offspring, but because it is able to protect and preserve the lives of a lesser number of offspring of a higher grade.

The instincts relating to conjugation are universal in all organic life above the lowest forms; but only in these animals which have gained a higher place in the ascending scale of complexity do we find the instincts relating to the germs of family life.

It is important to our future argument to make this distinction very clear. The individualistic instinct which gives us love in its widest form is, as we have seen, specialised to sexual uses and gives us sexual love, with its passion for mere conjugation. But this same individualistic love as thus specialised is further transformed into what we call "romantic love" which expresses itself in the demands for a special mate, and leads the lover to devote life to the service of this mate and of the offspring born of the mating.

These latter instincts are not only more complex in form but are also later in time of appearance. To be sure, they are drawn forward, so to speak, by imitative processes, and by the aid of the play instinct; but I think it becomes clear when we consider our own experience, that they are naturally of later rise than the instincts which lead to mere conjuga-

tion. With the age of puberty arise desires connected with the sexual act; but it is generally acknowledged that the love of this time of life is liable to shift from individual to individual and is of very momentary nature. If it be listened to under the influence of passion, it is not infrequently followed by hate of the one who was but a moment ago beloved, in case the permanent mating appears disadvantageous. If passion is yielded to with different lovers, and repeatedly, there may result an inhibition of the development of the later instincts for permanent mating, as expressed in "romantic love"; this is apparent in the lives of the licentious of both sexes.

If early passion be yielded to, and the bond of union recognised by society be welded, in extreme youth, it is not at all improbable that the love will be lost with the first obstruction in life's pathway. But if these early passions are held in check, then later in life, after character is formed, there comes for the best of men and women the dawn of a deeper affection, of a nobler devotion, which involves bonds of stronger form and more permanent type than any that mere sexual passion can arouse; this is "romantic love."

I do not feel altogether certain that my reader may not think that I have wasted words in making this argument, but I have thought it best to bring into clear relief the points here presented, because I wish to consider later on certain correspondences that are observable when we come to study the much more complex social instincts.

In order to make this argument clear it has been necessary to emphasise rather strongly the difference between the individualistic instincts and those that relate to reproduction of kind; and we have in this process exaggerated, to some extent perhaps, distinctions which are not very

evident to us in actual life. But this lack of recognised difference does not argue against the validity of the distinction itself; what it does indicate is that in becoming part of a race which is perpetuated by means of sexual processes, we have gained a special form of organisation which involves interrelation and interaction between these two groups of instincts. No longer can we act as individuals altogether, in no sense can we act with reference to reproduction of kind altogether; could we do so, we would in that very fact break down the organisation which has been formed by the development of the set of instincts relating to reproduction out of, or upon, those which have purely individualistic significance—an organisation formed without the obliteration and destruction of these latter instincts which are so very important for the preservation of individual life upon which in the end depends the preservation of our race.

B

§ 4. When we turn to the study of the relation between the two classes of instincts just considered and the social instincts, we find our problem much more complex. If we consider the instinctive activities of men around us we do not, at the first glance, find self-evident, to say the least, the statement made in the opening section of this chapter; the statement that the instincts which relate to the persistence of social groups are built upon and out of the individualistic instincts, as these have been modified with reference to the instincts that relate to the persistence of type.

Theoretically, however, there seems to be no question as to the correctness of the position taken above. It is certainly clear that, in a large proportion of the lower animals in which are developed very complex individualistic instincts, and equally complex instincts which relate to the propaga-

tion of their kind, there are few, if any, marks of the existence of those instincts which relate to the perfection and persistence of social life.

It is impossible then, if we accept the doctrine of descent of higher from lower forms, to avoid the conclusion that animals exhibiting these instincts of non-social import must have existed long before the social instincts were formed, and therefore that either the instincts of social significance must be expressed by totally new co-ordinations of activities, which we know is not the case; or else that the instincts of non-social import must have become so modified that while under normal conditions they act indeed to the preservation of individual life and to that of the species in which these instincts appear, nevertheless at the same time they act to produce in the individuals of that species efficiency to co-operate with other individuals to the formation of social aggregates—aggregates which come to be more or less persistent, inasmuch as this persistence indirectly favours the individual and his species in the struggle for existence.

The correctness of this view is vouched for by the very evident complexity of the higher social instincts which can in many cases be traced only by watching the trend of many series of activities which, from an objective view, appear on their face at the first glance to have only individualistic import, and which from a subjective view are so usually thought of as relating to individualistic aims that serious attempt has been made by philosophers, as we know, to explain them as being really derived from habits which were originally determined by choice of what were recognised to be purely egoistic benefits.

It does not seem to me possible to deny that men uphold automatically customs and laws which aim to prevent theft and murder and adultery, and that they do so, in the main,

with no knowledge whatever that these laws subserve social progress; and yet so complex are these activities that it is very easy, as not a few writers have shown us, to lead these same men, when we turn their thoughts to such consideration, to the belief that they are, or have originally been, led to undertake these actions for purposes of individualistic benefit direct or indirect; and it is correspondingly difficult to show them that the laws they follow would not exist did they not fit in with social impulses of instinctive origin.

Favouring our contention, we have the fact that the social instincts are less universal than those that relate to the persistence of the individual or the species. The earlier formed instincts, those that have become most deeply ingrained in our structure, are the ones which press for recognition when circumstances which relate to social aggregation alter, or where relative isolation becomes habitual. The struggle for existence continues; the strife for accumulation, the tendency to self-protection, the demands of sex drive us on; and this whether we remain with, or disconnect ourselves from, the aggregations which we call societies. On the other hand, we note that the nomad, whether by voluntary choice or by birth, the Arab of the desert, the Gipsy, the "tramp," each one of these unsocial beings, has an unsavoury reputation for violations of the moral order, which is determined by the instincts that relate to social life; we naturally expect the non-social wanderer to be an adulterer, a thief, and upon occasion a murderer.

Then, again, we find these social instincts influencing more vividly our conscious life; or in other words, showing less complete co-ordination than do the instincts of lower orders of complexity. Self-protection, the demand for sustenance, sexual tendencies, carry us away, are worked out thoughtlessly, seem natural; while the social instincts lead to endless controversies and oppositions which result in vivid

effects in consciousness. This incompleteness of co-ordination, as we have already remarked, indicates a relative lateness of formation ; for time is recognisedly an important element in the production of that thorough correlation of action which leads to complete or approximate loss of effect in consciousness.

§ 5. There is one difficulty about this conception to which I must refer at some length. If all that we have said above be true, and if it be true also that the development of the individual follows step by step the development of the life-history of the race, then we should look for the appearance of the distinctly social instincts not only after the appearance of the individualistic instincts, but also after these individualistic instincts have become modified in reference to sexual reproduction.

In the main I think there is no doubt of the truth of this statement. The child develops naturally no strong convictions concerning the sins of untruth and of stealing, until after the age of puberty ; children are often designated as natural liars. The instincts which lead to sexual restraint and purity must in their very nature be subsequent in appearance to the rise of the sexual passion. Patriotism is generally conceded to be a manly trait. Pity and sympathy are most markedly effective in adult life.

But many a reader will at once feel inclined to dissent from the general statement for the reason that certain cases which seem to be most obvious exceptions to such a wide rule will occur to his mind. What I claim is the truth of this general rule, and that the exceptions are so easily explicable, that the apparent contradictions do not vitiate the argument made above, which we have seen to be corroborated in so many ways.

These exceptions may be accounted for on purely

biological grounds if we consider the advantage to be won by a race in which the individuals gain, early in life, practice in those activities which are later on to be of advantage to him in his struggle for existence. It is a commonplace that children's "play instincts" have become connected thus with future demands which are to come upon them in the adult state. Doll plays which persist so long with girls who are to become mothers, the contentions and self-protective plays of boys who are to become the world's fighters, will illustrate this point.

But evidently, if the social instincts are to be of value to adult life, artificial cultivation in youth of the activities which will be involved in their expression will be of great value to the individual; and thus it comes about that we men have contracted advantageous habits of enforcing the activities expressive of social instincts upon children long before they feel the inborn impulses which one day would lead to the spontaneous appearance of these activities; and this we do by precept and practice, laying hold of the child's inborn tendency to imitate those who surround him, encouraging him to copy those actions which we deem right towards his fellows, and leading him to act like a member of a complex social community long before any social instincts guide him to act thus spontaneously. Thus he is taught to object to lying, to stealing, and to hurting his companions, and thus he learns to act sympathetically.

§ 6. The difficulty of recognising the fact that the social instincts appear later than the instincts relating to reproduction is largely due to a failure to recognise the distinction referred to at length in the third section between (A) the sexual instincts proper, which have to do with conjugation, and the pursuit or attraction of individuals of

the opposite sex; and (B) the instincts which relate to the protection of the mother and the young.

I think it cannot be questioned that the instincts which lead to conjugation in general rise before those instincts that are of social import. But we are all too likely to think of the higher class of instincts which relate to the persistence of species as of one grade with those that lead to conjugation; and when we find the social instincts growing up together with those of the later reproductive type which lead to permanent mating, we are liable to be led to deny the temporal distinction I am making.

But, as we have already seen, the instincts of that higher class relating to the persistence of species through protection are much later in appearance in individual and race life than are those that relate to conjugation only; and as a matter of fact the less complex of the social instincts may not improbably have had their rise almost coincidently with these higher grade instincts relating to reproduction.

It seems to me much more probable that these latter instincts of higher reproductive type, having been formed for furtherance of the life of the species, were speedily transformed to other uses by nature; in other words, were made to do valuable service in the building up of social aggregates. Thus in a way it will appear to be true that family life is the very foundation-stone of social life; but, on the other hand, it cannot be denied that a large part of the more complex social impulses are much later in formation even than those which lead to permanent mating and family protection.

§ 7. What was said at the close of § 3 concerning the relation between individualistic and reproductive instincts holds more emphatically in connection with the

social instincts. In becoming part of a race, which is aided in its struggle for persistence by instincts which lead to the aggregation of mutually dependent individuals, we have gained a new and special form of organisation which involves interrelation and interaction between all these three groups of instincts.

No longer can we act as individuals altogether, no longer can we act with reference to reproduction of kind altogether : but furthermore in no sense can we act only and altogether with reference to the welfare and persistence of the social groups to which we belong ; could we do so, we would in that very fact break down the organisation which has been formed by the development of the social instincts out of those instincts which have individualistic significance and which have, nevertheless, been moulded into new shape in order that they may subserve the needs of reproduction ; this development of these social instincts having taken place without the obliteration or destruction either of the individualistic instincts or of the instincts which relate directly or indirectly to the perpetuation of our species.

In this connection let me quote Mr. Leslie Stephen, who, leaving out of account the sexual instincts, is concerned only with the relation of social to individualistic instincts. He says (*Science of Ethics*, ch. iv. § 4) "the distinction drawn between the social and the self-regarding qualities, or, again, between qualities as useful to the race and useful to the individual, cannot possibly be ultimate distinctions. Every man is both an individual and a social product, and every instinct both social and self-regarding. To say that a man is an organism is to say that each of his organs is so dependent upon all the others that it cannot be removed without altering the whole organic balance ; or, as I have said, that a leg is not, or is not solely, a crutch. If we speak, then, of one instinct as referring to the society, and

another as referring to the individual, we must always remember that each of necessity implies the other. In speaking of them apart, we are using the artifice of the mathematician who considers one set of symbols to be variable and another as constant, not as meaning that the quantities which they represent are really fixed or in reality independent, but simply as enabling him to calculate more easily by disentangling separate sets of consequences. The social qualities are developed on the invariable condition that the self-regarding qualities exist, and *vice versa*, and the 'best' qualities mean the best consistent with this condition."

In closing this special discussion, I may mention that this impossibility of separating the individualistic from the social instincts in our complex lives finds a parallel in the dependence of our notions of individual life upon our notions of the social life of which we individuals form a part, to which Professors Royce and Baldwin have lately given so much prominence. Just as our individualistic instincts become marked in relation to the social instincts which are built upon and out of them, so our conception of individuality is determined by the existence of the social ties which gives us our conceptions of the existence of others than ourselves.

We may now, I think, lay aside our doubts engendered by the complexity of the phenomena with which we have to deal.

That there is a marked distinction, nay even an apparent opposition, between individualistic instincts and both the primary and secondary sexual instincts on the one hand, and those of social import on the other hand, no one will question.

When we take the next step I think we may hold that

the decisive reason for upholding the distinction between the higher instincts relating to persistence of species and the social instincts is this, that the latter subserve a biological end quite diverse from that subserved by the former, lead to the formation of a new and higher grade of organic life which could not appear were there no higher instincts than those which protect offspring from annihilation.

II.—THE SUBORDINATION OF INSTINCT GROUPS, AND OF INSTINCTS WITHIN THESE GROUPS, IN A DEFINITE ORDER

§ 8. I wish now to emphasise one point made rather incidentally in the chapters that have preceded this, viz. that the very existence of these groups of instincts of several orders implies the subordination of certain instincts to other instincts in relation to this order: implies a hierarchy of the instincts, if we may so speak.

If it be true that the instincts relating to sexual reproduction have been built up out of, or upon, already existing individualistic instincts, then it seems clear that this could only have occurred because the average individual under normal circumstances had come to act instinctively to his own individual advantage indeed, but also in such manner as would favour advantageous sexual reproduction. If in the end sexual reproduction and its attendant protection of the young became necessary for the continuance of the species, then evidently the instincts of individualistic import must in general have become subordinated to those of the higher order, so that divergence from normal individualistic action which has sexual significance would on the whole be prevented; for otherwise these individualistic instincts in their divergence would interfere with the essential sexual processes and their accompaniments, and the race dependent upon them for its persistence would fail to survive.

In like manner, if it be true that the instincts of social import have been built upon, or out of, already existing individualistic and sexual instincts, the latter having themselves been already acquired after the individualistic instincts were well developed; then it seems clear that the social instincts can only have been acquired because the average

individual under usual conditions has come to act as an individual indeed, as one concerned with the reproduction of his kind indeed, but withal also with distinct, even though unconscious, reference to the existence of the social aggregate of which he is a constituent part. If in the end the struggle for existence has become so sharp that social combination has become necessary to the persistence of a species, then evidently the instincts of individualistic import, as subordinated to those which deal with reproduction and protection of the young, must on the whole become one and all subordinated to those of social significance, so that divergence from normal individualistic and sexual action which have come also to have social significance, will in general tend to be suppressed; for otherwise these non-social instincts in their divergence would interfere with that social consolidation upon which the life of the species depends, and the species would fail in the struggle for persistence.

In other words, if the social instincts exist, as they do exist, it is almost certainly because on the whole the individualistic instincts, as subordinated to those instincts which relate to reproduction, have been in their turn subordinated to those instincts which have social significance. What is more, it is equally clear that this subordination must be persistent if the social instincts already formed are still of biological value, and are to remain persistent in the race that is to descend from ours.

In the chapters to follow this I shall study somewhat in detail this subordination of the instincts of lower orders to those instincts which have social significance; but before doing this I must call attention to some special facts in relation to those social instincts.

There is one other point to be mentioned before closing

this chapter, viz. that we have been speaking here of three great groups of instincts only, and not of the specific instincts within these groups. Between the groups thus described we have seen reason to grant the existence of a hierarchal order; but evidently between the specific instincts of the specific groups there must be also something allied to a hierarchal order; for it is perfectly clear that these instincts within the great groups must have been formed at different times in the life-history of the race, and therefore that each new instinct must have been formed by the modification of previously existing instincts, or at all events with reference to these already existing instincts.

It will thus happen that the instinct actions expressive of the instincts within a given group will necessarily vary in perfection of co-ordination in proportion as they have existed long, and have been often brought into activity in the life-history of our ancestors; it will thus happen that where instincts have been formed approximately at the same period in that past, the frequency with which they have been called into action will determine the thoroughness of this co-ordination, and thus in different individuals we must expect to discover differences in quickness of response in connection with instinctive reactions of different types.

In other words, the hierarchy of efficiency of the instincts within the great groups, and to a less extent of the groups themselves, will necessarily differ in different races and in different individuals of the same race. We shall discover the importance of this point in the chapters relating to Impulse.

CHAPTER VII

OF THE CONCEPTION OF THE SOCIAL ORGANISM

§ 1. IN considering the subject which we have been discussing in the previous chapters, we are naturally led to note that an argument by analogy leads to the conclusion that the social aggregates of individuals in whom social instincts appear must be themselves organic in their nature.

As we have already seen, the adjustment of instinct actions in a part of an individual (*e.g.* the heart) to the welfare of the individual as a whole, is a mark of the existence of organic unity in the individual to which this special part belongs and which it serves: and from this we naturally reason, to use Mr. Leslie Stephen's words,¹ that "the existence of any specific organ implies the existence of an organism provided with other organs discharging correlative functions."

If then we note, as we do, that individualistic instincts and those resulting in the reproduction of kind are adjusted to the welfare or persistence of social aggregates, we may well judge that this signifies almost certainly the existence of organic unity in the social aggregates of which the individuals are elements, and which these individual elements serve.

We raise no valid objection to this view by remarking upon the strong sense of individuality in man, nor does it

¹ *Science of Ethics*, p. 118.

suffice to reiterate that social aggregates are merely fortuitous groups of individuals. We have exactly the same ground for holding that all organic life consists in naught but the fortuitous grouping of elemental cells; for it is evident that, whatever our modern doctrines concerning the development of organic life have taught us, they have left quite untouched the mystery of the nature of that bond which exists between the elemental cells in an organism and which determines what is currently spoken of as the "integration" between the several cells and the several cell-made parts.

We speak very glibly of this "integration," as though we understood the exact nature of the fact in nature to which it refers, whereas the word is merely representative of this fact and too often serves as a cloak to cover from our own view our ignorance of the nature of the processes involved. Until we understand fully the significance of this bond between the cells of organisms we are surely in no position to hold that the bond differs in its nature from that which holds together, more or less firmly, the individual elements of social groups.

Nor does it seem to me just to object, as Professor J. Mark Baldwin does,¹ that "the true analogy is not that which likens society to a physiological organism, but rather that which likens it to a psychological organisation." For I think we must agree that the psychological organisation is accurately co-ordinate with the physiological organism, the one is dependent upon the other, and the writer who likens society to a psychological organisation is therefore, in fact, likening it to the correspondent physiological organism also. Furthermore, there is in my opinion greater propriety in the latter analogy, because physiological organisms and social life are both considered on the same objective plane, and are therefore more justly comparable.

¹ *Social and Ethical Interpretations*, p. 544.

§ 2. As my readers well know, this conception of the organic nature of social aggregates has been suggested to the minds of many thinkers who have approached the subject from very diverse points of view. Mr. Herbert Spencer has laid especial stress upon the conception, and I think it will be worth our while to examine his consideration of this subject with some care, for so far as the notion is justified we shall find it useful to us in our further study.

Mr. Spencer calls attention to the fact that social aggregates correspond with organic forms in general—first, in that they grow; second, in that they increase in structure as they grow; third, in that the individuals which are supposed to be elements of these higher social organisms perform different functions; fourth, in that the so-called life of the social aggregate may be destroyed without destruction of the life of the units; and fifth, in that the units may die or be lost to the aggregate and be replaced by similarly functioning units, without necessary impairment of the integrity of the social aggregate itself. Let us consider each of these points briefly.

§ 3. 1° It is clearly true that societies grow: but it is to be noted that they grow for the most part as do the very low forms of individual organic life, by the aggregation of like elements in which the mass of the functioning is the same for all; individual is added to individual in making up the social body, much as cell is added to cell in the formation of the lower organic aggregates, and of the elementary parts of the higher organic forms.

In the organic life of the higher animals, on the other hand, growth is accomplished by the aggregation of parts which function very differently, and which, beyond certain limits, cannot be made to function alike, as we shall see more fully below. Intestines, stomach, heart, lungs, liver,

kidneys, each differ in form and function. The form and functioning of individuals in their relation to social aggregates is clearly much less differentiated.

§ 4. 2° That social aggregates, like organic aggregates, increase in structure as they grow must be granted, but it seems equally clear that the increase corresponds with that found in the lower animal life rather than with that noted in the life of animals of the higher grades, as is more fully explained in the next paragraph.

§ 5. 3° That differentiation of functioning is marked in social bodies is of course agreed, and it is clear that the complex division of labour which appears so prominently in the higher civilisations corresponds more or less accurately to the differential functioning of parts in the individual organism. In the lower forms of life we find cell-made parts active in grasping the prey, others concerned in bringing the nutritive substance within the body, others determining its absorption, still others active in propelling the organism, and others in warding off danger.

So in the complex social life of man, to take an extreme example of the most highly elaborated form, we find the farmer class furnishing us with our food supply, other classes dealing with its distribution, the soldier class protecting the corporate body, others giving their whole time to making tools by which their fellows may work, and others influencing their companions by thought and by the expression of thought.

But here we must note that these differences of functioning of the individual elements of social aggregates are determined to a great extent by conditions external to the individual, just as in the lowest forms of individual life the cell elements are determined to differential functioning

by differences in the stimuli from without which reach them; their varied performance being due, not to inherent differences in the parts themselves, but almost altogether to differentiation of these external stimuli.

The same influence of external circumstance is visible in the social aggregates even where they are of the highest type. A man, for example, may be a common farmer under certain conditions, but, given other conditions, may find himself leading armies to victory: in other words, the elemental individual who, under certain stimuli, may be part of the apparatus which brings nourishment to the hypothetical social body, under certain other stimuli may become part of the protective apparatus.

But in the higher organic individual life such transfer of function takes place with great difficulty, and where it is possible at all it occurs only within narrow limits. One kidney may indeed learn to do a large part of the work of two: the foot may learn to do some of the work of the hand; some part of the brain cortex even may learn to do the work of a part that has become extirpated by disease or by surgical operation; but the change must take place slowly, and the accommodation is recognisedly difficult, even where the functioning of the two parts involved is closely allied, as in the cases just mentioned: where the functioning is very diverse, as between heart and lungs, brain and stomach, transfer of function is known to be impossible.

In the life of the very highest of the social aggregates such as we find in our most fixed civilisations there is, as already indicated, no corresponding difficulty in the transfer of function from individual element to individual element.

§ 6. 4° That the social aggregate may be destroyed without death of the individuals of the aggregate is true,

and the same is true of the cell units or simpler cell parts of the lower animals.

But as animals rise in the scale of organisation the life of the parts becomes more and more necessarily dependent upon life in the whole organism. The heart of the frog will indeed beat on one's hand for a considerable time after it is removed from the body, but it cannot live long apart from the body, even if it be artificially nourished. Certain of the functions which are determined by the action of the spinal nervous system will be carried on also in the frog after its brain has been extirpated; but this cannot continue for any great length of time; and in man, and the higher animals in general, death of the organism involves much more speedy death of the elementary parts.

In the social aggregate, on the other hand, what is assumed to be death of the aggregate, or destruction by disruption, may occur without the production of any notable effect upon the duration of life in the individual elements of the aggregate. A tribe of troublesome savages may be broken up, as often happens, but this involves no death of individuals. In the higher social life, Poland and its social organisation have disappeared without loss to the world of those who would but for its disruption make a nation to-day. So you may disrupt cell aggregates without destroying cell life: you may cut certain of the lower animal forms in twain and you will speedily find that you have destroyed neither part but that presently you have two smaller individuals, each complete in itself.

§ 7. 5° In the lower animals we find that parts which have been lost may be replaced without death in the organism; if we cut off the claw of the lobster it is after no long time replaced and the animal is apparently unharmed. It is correspondingly true that in social aggregates, social

life may continue, although individual elements die; their work being taken up by other individuals.

But in the higher animals destruction of any important part involves not only no reproduction of the part but often speedy death in the organism as a whole; and in this respect there is no correspondence between the life of the higher animals and what is claimed to be the life of the social aggregate.

§ 8. It becomes evident, then, from each of the points made above that if the social body be organic it cannot be much more advanced in integration than those lower forms of individual organisms which are little more than aggregations.¹ This becomes especially prominent when we consider, as we have above, that artificial division of parts of the so-called social organism does not destroy its life; great bodies of men may associate themselves together and separate themselves in new colonies without destroying or maiming the original social group: only in certain limited directions do we see anything like the integration of differently functioning parts that is found in individual organisms of the higher types.

Why I have thought it necessary to lay such stress upon this point will appear clear in the sequel.

§ 9. From all that has gone before, I think we must see that we cannot lightly cast aside the notion that social life is organic in its nature; it seems indeed most probable that some of the most complex of developments in our fully differentiated life may have relation to efficiency in a wide social organism.

I wish here in passing, however, to call attention to the fact that we, as elemental parts, are in poor position to

¹ Cf. Leslie Stephen, *Science of Ethics*.

judge of the completeness of this social organisation, if it exist, or to conceive of its trend so far as it is effective.

§ 10. Altogether apart from the considerations presented in the closing section of Chapter II., many of those who have made a special study of the impulses which relate distinctly to tribal advantage have been led to ask whether it may not possibly be true that tribal life, so far as it is organic, may have as its coincident a "social consciousness" correspondent to the activities of the hypothetical social organism. It is worth while, I think, to stop here a moment to consider this question from our present point of view.

As we have just seen, the social organism, so far as it exists at all, must be supposed to correspond with the lower forms of animal life in which the complexes of cells are little more than aggregated; rather than with those forms which are so closely integrated that they may be spoken of as of high organic type.

It is surely improper to speak of the opinions of aggregates of men as we comprehend them as a "social consciousness," as our extreme sociologists oftentimes do;¹ for the conception of a social consciousness implies that the thoughts of men as they are related to the whole pulse of the social consciousness, must correspond in the main with particular psychic elements in us, as these are related to the whole pulse of our own conscious life.

Were the psychic elements which make the substance of our conscious life so loosely bound together, so fortuitously unrelated, as are the thoughts of men, we could certainly not believe that out of these more or less isolated psychic elements anything could arise correspondent to consciousness as we know it. Only where we perceive close com-

¹ Cf. the late French Sociologists, who speak of imitation as social memory.

munity of impulse, and identity of thought amongst large masses of men, can we imagine the existence of anything approaching to a social consciousness, and even then this social consciousness would be of a grade much lower than human consciousness as we know it.

Furthermore, even if we suppose, for argument's sake, that a social consciousness does exist, of which our thoughts are mere elements, and the possibility of such existence I agree to, what reason, I would ask, have we to believe that our elemental thought can in any way grasp the content of this hypothetical social consciousness? As well might we expect the elements of our psychic life, say our sensations, to grasp the complex resultant which we call our consciousness. He would be a bold psychologist who would suggest that a sensation could appreciate our higher life of reflection, however much we may believe in the effect of the one upon the other.

If there be perchance, correspondent to our individual consciousness, a social consciousness of sufficiently high grade, it may know our thoughts as elements, much as we appreciate the existence of our own sensations and their elementary qualities; and it may have means of expression that are effective for other consciousnesses of its own order; but we as elements of this wider consciousness can surely not be able to grasp even dimly the nature of that higher consciousness which, if it exist, must be determined by the pulse of thought of many interrelated individual consciousnesses. What sociologists are often tempted to speak of as the "social consciousness" should therefore properly be spoken of merely as the related consciousnesses of the individuals composing social groups. Of the possibility of our conscious appreciation of this social consciousness in an indirect manner I have already spoken in the last section of Chapter II.

§ 11. One more point. If it be true that social aggregates are organic, and that this organic nature is of a low order, then it is clearly impossible that the hypothetical social body can be able to perform functions correspondent to those which in individual life are performed only in organic forms of a most complex order.

The hypothetical social body, if it exist, may indeed be counted on to perform the differential actions that relate to the lower forms of assimilative life, and those which relate to simple forms of self-protection. Just as soon, however, as we assume that this hypothetical social organism can perform great complex work correspondent to the higher grades of work done by a highly-organised individual, with all his parts thoroughly integrated, we must expect to find our assumption unverified: we must expect the social functioning thus attempted to fail, because the aggregate in such directions fails to act as an integrated unit, because it easily loses its organic structure and becomes a mere cumbersome machine with parts working together in time, but under no co-ordinated and integrated system. This is a thought which it seems to me our thorough-going Socialists may well take into serious consideration in these times.

I would also note that the correspondence between the social organisation and the organisation of very low types of individual animal life indicates rather clearly that there is little likelihood that any approach to a very high grade of social organisation will ever be attained in the human race.

We note in our study of the lower life that types of very low organisation still exist in what we surmise to be the very earliest forms which have appeared. Individual cells of this type have never bound themselves together into complex organisms in which the elements subordinate themselves to the welfare of the aggregate. The conditions of their environment are such that they are capable of

existence, and of reproduction of kind, without co-operation with other like elements.

There are other types in which co-operation between elemental cells has become habitual, but in which it is not necessary ; which form aggregates indeed, but aggregates which are constantly breaking up into simpler masses whenever disturbances occur in their environment.

To this latter type our social organisms are to my mind closely allied. We do as individuals habitually co-operate under normal conditions, and in certain cases the co-operation has become so efficient as to develop specialised individuals, cases which we see exemplified in the caste system, against which, in its extreme forms, our whole nature revolts.

But there is no evidence that future civilisation will be dependent upon any persistence of the differentiations of a nature allied to those we see in the caste systems. As a matter of fact we know that in the oldest of civilisations, like that of India, where the caste systems attract attention, every great reform in philosophy and religion has had for one of its aims the attempt to break down the caste system of differentiation and specialisation, by the preaching of the brotherhood and the equality of man.

In our own western civilisation, which clearly shows signs of being of an advanced type, of bringing man into better relation with his environment than any of the older civilisations, we see exemplified most notably the protest against the subordination of the individual to the higher organisation of the social whole. Nothing else than this does the strife for individual liberty mean ; a strife which, for the most part, really leads to the adoption of current theoretical socialistic doctrines themselves, which doctrines, however, if carried into practice would involve most certainly the overthrow of individual liberty.

That I believe that social organisation of a low type

exists, and will continue to exist, the reader by this time realises: this is shown in the very fact that we note social instincts and impulses within ourselves. But that this social organisation will not become of a high order in any age to which we can look forward, I think very certain; and that it will ever become of a high order seems to me very doubtful, unless the surface of our planet in some future day be so overcharged with mankind that contest of races for survival will tend to bring about the elimination of all races but those which can act thoroughly as units. Before that day can come our ideals of individual liberty must dissolve away and vanish.

CHAPTER VIII

THE GOVERNING INSTINCT—THE RELIGIOUS INSTINCT

I.—OF THE EXCESSIVE TENDENCY TO VARIATION IN SOCIAL AGGREGATES

§ 1. THE argument of the preceding chapter seems to me to compel us to agree that social organisation of a low grade does actually exist; although it at the same time emphasises the limits which necessarily attach to the conception of the social organism. Let us now consider in some detail one of the necessary implications of this argument.

As we have already seen, the very existence of the social instincts in us compels us to the conclusion that the individualistic instincts, as subordinated to those instincts which relate to reproduction, must in the past have been subordinated in their turn to the instincts of social significance; and this leads us to the further conclusion that this subordination must be conserved if the social instincts already formed are still of biological value, and are to remain efficient in our descendants.

In making this concise statement I of course assume that the reader has followed my previous argument with conviction; but I fear that I may speak to some who are not satisfied as to the validity of the whole argument, and who hesitate to accept the suggestion that the sexual

instincts have been later in formation than those of individualistic import. For such readers it is perhaps worth while to note that, even if they do not grant this point, at least they must acknowledge that the social instincts are of later acquisition than the individualistic ones, and if they make this concession they will find that the general argument to follow will not be invalidated even if the statement which they hesitate to accept be repudiated.

It must be granted, then, that if we can reason from past values to present values, then it must be of biological importance to-day that the individualistic instincts, as modified, be subordinated to those instincts which are of social import; and if this be true, then it is evident that on the whole radical variation from what we have seen to be the established order of subordination must be repressed. But I think it is not at all difficult to show that variation from this established order is very likely indeed to become over-emphasised under the conditions which surround man's complex social life.

It is here that the importance of the analogy between social organisation and the lower forms of individual organisation becomes apparent. We have noted that in all organic forms the parts of the organism are so formed that they act for the welfare of themselves and of the organism also, under normal conditions; but that if conditions be abnormal then the parts tend, as before, to act for themselves, but without the same regard to the welfare of the whole organism.

Anticipating to some extent what will presently be more fully treated we may here call attention to certain points of interest in this connection: first, that variation is brought about by the forceful stimulation of some special part which is thus induced to act for itself without reference to the whole organism: but second, that the tendency to

variation is emphasised whenever the integration between the several parts is of a low order: and third, that increasing complexity of structure in the mass tends to reduce the efficiency of integral bonds; for evidently if the relations between the parts of individual organisms are relatively simple, the influence from the whole aggregate upon certain parts that are stimulated is likely to be more quickly felt than in a complex organism in which the total system is built up of many subordinate systems variously integrated and differently related.

All of these influences tend to break up organic individuals of low type into unrelated constituent elements; tend to destroy the low grade organic individual life; or even if this destruction be not affected, tend to reduce reactions of intimate relation which lead to individual efficiency.

Now if social aggregates are very complex organisms analogous to the lower forms of individual life, then, in consequence of their very loose integration and of their very complexity, we should expect to discover existent in them the second and third tendencies mentioned above, leading to the emphasis of variation from typical actions of social significance; and consequently wherever the stimuli to individualistic instinct actions are powerful we should expect to find a tendency to the overthrow of that order of instinct subordination which we have seen to be so important to our racial life.

§ 2. Let us see how far the view above expressed is corroborated by experience; and first let us consider again the results of excessive stimulation. The effect of the forceful action of an element in an individual body, as it appears even in animals of a higher type, has already been illustrated by the action of heart and lungs and intestines, which

at times, under special stimuli, act to their own advantage but to the destruction of the individual of which they form a part. Such forcefulness of reaction will of course follow where the stimulus which affects a given element is unusually powerful; but it is to be noted that we obtain what is practically an excessive stimulation whenever the influences from the organism are not habitually called into play with a force relatively equivalent, in answer to the stimulus in question.

When we turn to consider the low grade social organism I think it must be clear to the reader that the very conditions that are essentially bound up with the increase in complication of our life as individual elements of a social community tend to bring into prominence the forceful presentation of unusual conditions which seem to demand immediate reactions, but reactions on lines in relation to which our instincts have apparently no teaching to give.

It is especially to be noted that the *relative* excess of certain stimuli which naturally lead to individualistic reaction becomes of marked importance here, for the reason that the racial influences are effective, as we have seen above, rather because they act through very many phases of life, than because they act forcefully in any specific instance. For this reason clearly these racial influences must be expected to be slower in reaction than those of a lower order, and less powerful unless they are allowed time in which to develop: hence the stimuli to individualistic reaction must be often liable to be excessive, relatively speaking, in comparison with the stimuli to reactions of social significance.

Thus it comes about that under special stress individuals tend to act as individuals rather than as members of a social body, and thus often some emphatic presentation to the mind of the opposition which individualism is making

to the racial demands is required, or perhaps a summation of such emphatic presentations, in order to bring the racial impulses into play.

A man may sin against his social impulses thoughtlessly where he acts without consideration and where his act is not of marked influence upon his life. But finding himself about to commit some flagrant immorality he is forced upon occasion to attend to what he is doing, his social impulses are brought into prominence, his proposed act appears distinctly as deliberative, and this may suddenly "bring him to himself" as we say; may lead him to realise the existence of the non-individualistic, the social impulses within; may lead him to recognise his guilt and to reform.

So also do we often without protest allow our neighbours to act in opposition to our social impulses where the acts are not distinct enough to arouse immediate resentment; but the summational effect of the repetition of such sins will finally bring about a reaction which leads to the condemnation of the sinner. How often does the unscrupulous politician come to believe that the masses have lost all moral sense, because he sees no opposition to his action; how often is he surprised when, after many repetitions of crimes against their every-day morality, he finds them suddenly arising in revolt, upon what seems to him to be a most trivial indiscretion on his part; finds them, moved by a deep-lying moral sense, thrusting him aside as an unworthy servant.

§ 3. Again, in considering the action of parts of an individual organism we have seen that variance caused by excess of stimulation, positive or relative, will be emphasised if the integration existing between the parts is of a weak order; in other words, elemental variant action will be more likely to take place in those animals in which the

elemental parts are less closely inter-related, than in those in which the elemental parts are more closely inter-related.

If now we turn our thought to the social analogue, we note clearly that in the racial life of man, in very many cases, the bond of interdependence between individuals is a very weak one indeed: the ties that have held the aggregate together may with little difficulty be broken, and new aggregates with changed relations may be formed. This is amply illustrated wherever the restraints due to social instincts are removed: we find a marked emphasis of individualistic traits whenever conditions of social life are radically altered.

The Anglo-Saxon, even though reared under the valuable restraints of a refined life in a highly civilised community, finds it all too easy to fall into the habits of loose morality of the semi, or wholly, barbaric races with which he may find himself domiciled in the Colonies. The European who revolts against slavery at home, uses what is practically slave labour in Africa, when he finds himself powerful by its means. The frontiersman who would have scorned to murder before emigration, scarcely hesitates to kill the poor savage who happens in his way.

Now it seems to me that, even if we do not assume the validity of the parallelism with the lower grades of animal life which is so naturally suggested, it becomes evident from the very examples just given, to which the reader will be able to add many others, that this lack of interrelation, of interdependence, in itself involves an exaggeration of the tendency within us to act individually instead of racially; and this emphasis of the individualistic influences will be likely to appear whenever the weak bonds of interdependence are broken, or where their relations of efficiency are altered; and I think it will be acknowledged that in the very nature of our exceedingly varied and complex

civilisation such alterations and breaks as those to which I have just referred by examples are exceedingly likely to occur.

§ 4. Again, in our study of individual life we noted that increase of complexity must lead to the emphasis of variation; and when we turn to the consideration of social life I think we cannot hesitate to agree that we have here a most potent influence favouring this emphasis. The very marked complexity of our social life is indeed self-evident, and I do not believe my reader will hesitate to agree that this complexity of influences which impress us, producing as it does an enormous variety of positively or relatively forceful stimulations, itself implies emphasis of variance; and the more complex the life becomes, the more distracting the stimuli to action, the greater will appear the danger of disadvantageous subordination of the social impulses to those of individualistic import, the danger of a reversal of that order of instinct emphasis which Nature impresses upon us.

§ 5. There is another and most important influence which leads us to emphasise variation from that order of instinct subordination which we have seen Nature would have conserved in our lives.

We have seen in the fourth chapter, where we discussed at length the nature of instinct, that instinct actions tend to become unconscious as we say; and that this movement towards unconsciousness occurs in certain cases where these actions have become thoroughly co-ordinated, so that their instinct feelings do not become forceful in the pre-eminent consciousness: and again we have seen that this happens also where these instinct feelings become disconnected from the brain consciousness, either through incommensurability of rhythm or by other means.

But demands for vigorous reactions of distinctly individualistic significance when they are emphasised by rationalistic considerations do not show this tendency to become unconscious; and hence these demands, not being so likely to lose their forcefulness in our psychic life, are the more likely to be influential in subverting the established order of instinct emphasis.

§ 6. This movement towards unconsciousness is important to the emphasis of variation in quite another way; for it will be evident to the reader, as soon as his attention is drawn to it, that individually acquired habits of action tend to become unconscious exactly as the instincts do; if persisted in they gradually become more and more fully co-ordinated, and less and less forceful on their conscious side; in fact they seem in extreme cases to become entirely disconnected in their action from the active working consciousness. The pianist when he begins to learn to play upon his instrument finds his practice accompanied by laborious conscious effort; but when he becomes a virtuoso the technique becomes less and less prominent in his thought, and finally we find him thinking solely of the expression, considering at most only the effect upon his audience of the emotional trains that arise in his mind and which he interprets by means of his instrument.

If the same processes are at work in the building up of these individually acquired habit reflexes and of the instincts, then evidently the same or very similar phases of consciousness will be attached to the two diverse sets of activities at corresponding stages of their development.

It becomes clear, then, that the very processes which in the racial life of the past have tended to make instincts less and less conscious, do in our individual lives tend to produce unconsciousness of the acquired activities which

originally result from ratiocination entirely within consciousness: and hence individually acquired habits which are clearly conscious in their inception may become all but pure reflexes, and their psychic effects throughout this movement towards unconsciousness will then be so closely allied to the psychic effects produced by instincts that we will be very liable to confound the true instinct with the acquired habit, which may have no biological significance whatever.

Individually acquired traits may become habitual in certain groups of men; and habit, and custom, may lead to their enforcement because of their retention from one generation to another: and thus what are no more than habits gained by the teaching of others may also come to be mistaken for true instincts.

It is clear, then, that in our complex life we should expect it often to be most easy to mistake the leadings of the individual habit reflexes above spoken of for true instinctive leadings;¹ and this tendency to fail to differentiate the habits acquired by deliberate action in the life of the individual, from the instincts proper which belong to his race, will evidently lead to a distinct danger of over-

¹ It is evidently most important that we should learn to distinguish between the true instincts and these individual habit reflexes which grow upon all of us: for evidently individual habit may lead to distinct racial loss. The habits of the musical virtuoso, for instance, could not but be of distinct disadvantage if adopted by the average man. It is needless to speak of the acquired habits of alcoholic drinkers and opium smokers to emphasise what I mean.

The importance of this distinction will become very clear when we note that we as individuals are not responsible for the true instincts, while we are responsible for the emphasis of the habit reflexes, and for their effects upon ourselves, upon our neighbours, and upon our descendants.

The differentiation of the instincts from the individually acquired habit reflexes is determined by the fact that the instincts are surer to be produced by widely varying individual conditions: when what appears to be an instinct within us wavers, and fails to react with certainty, or is not felt by our companions of similar ancestry, then we may at once suspect that it is not a true instinct but an individual habit reflex.

emphasis of the individual variant influence where it may come in conflict with the racial influence.

§ 7. In our life of struggle another important source of the over-emphasis of individualistic impulses is to be found in the fact that in not a few cases success in life for which we all strive, as that success is usually gauged, is attained most fully by those who fail to appreciate the importance of the higher racial instincts.

That honesty is the best policy has become a proverb because by the use of it men try to persuade themselves that those who win success through disingenuousness stand on dangerous ground. But it must be confessed that the mass of fortunes, by the attainment of which in our day success is largely gauged, have been reached by skilful dishonesty.

I think it cannot be questioned that autocratic power has in the past been gained almost entirely by what the best of us nowadays would call immoral methods, and that political power is to-day for the most part reached by means which honourable men of the world would not condone in the conduct of their own affairs. Yet to rise to eminence as conquerors and as political leaders is surely counted as success.

That licentiousness and other immoralities are no bar to social distinction is as true to-day as it was in the days of old.

Now without question these three attainments above mentioned, wealth, power, and social distinction, are all counted most desirable; and yet they are all gained almost without exception by the emphasis of purely individualistic traits: self-love, self-protection, self-glorification, dominance over others for the personal gratification gained, theft of others' goods, destruction of one's enemies and of what belongs to them and gives them power.

What wonder, then, that these individualistic traits have a special fascination ; a fascination that does not and cannot attach to those habits of social value which are the outcome of impulses that give no individual importance, but which tend rather to bring about subordination of the welfare of the individual to the welfare of the race of which he is a mere element : what wonder that this fascination leads to the alteration of that relation of social to individualistic instincts which Nature would impress upon us.

§ 8. In a future chapter I shall attempt to show that reasoned processes are the latest and highest development of the variant principle in us. The power of this later development of the variant principle to become effective is much enhanced by the co-ordinate growth of habits of reflection in connection with the action of the fundamental “instinct to imitate” which is so powerful in us all.

It is apparent that the individual variations determined by process of ratiocination, if this process stood alone, would in many cases affect the lives of the reasoners too lightly to make these variations determinants in any part of life's struggle, and thus to fix them in the race to which the individuals belong. There is no conflict of opinion and survival of opinion in a sense co-ordinate with the conflict for and survival of life. There is no destruction of one conception by another. Survival of an opinion must evidently depend largely upon the survival of the race holding that opinion, and this survival may often be only incidentally affected by the opinion itself. In tribal contests, famine or the sword of a more muscular or numerous neighbour may blot out a race in which subtlety of thought has been developed to a much higher degree than it has been developed in the race that conquers and survives.

On the other hand, the man who reflects and reasons pictures the life of his fellow-man as it differs from his own, and if his imagination of the totality of results of certain habits in his neighbour is on the whole more pleasant than the picture of the results of his own differing habits there is aroused within him a tendency, not necessarily recognised as such, to follow his inborn "imitative instincts" and to alter his mode of life to accord with that of his fellow.

This process would be effective to alter moral standards, and in ways which would be almost entirely indifferent so far as the laws of direct struggle for existence are concerned. These latter laws would not take effect in connection with these differentiations until the alteration of thought had affected belief, and the action connected with belief had been itself influenced in some direction that related to the survival contest. So long as these changes of mode of life and standards were indifferent, so far as the general welfare was concerned, they might continue to gain in strength: when they became well established they might become distinctly advantageous or disadvantageous to the race, and then indeed they would become factors of importance in connection with the law of survival: but from the ethical point of view the law of imitation after reflection is the more important law to be considered so far as it relates to the formation of new standards; and the development of this imitative instinct in the higher life of man, which is acknowledged by all psychologists to-day, makes it a most potent factor in that emphasis of variation through reason which we are considering.

§ 9. It seems to me that enough has been said to establish my point: I think it will be acknowledged that with the growth in complexity of life in communities, as we experience it, there will be many forces at work leading to

a repressal of racial influences, and to an emphasis of individual variant ones; and this will necessarily tend to invert the established supremacy of social to individualistic instincts; will tend to break up the life of the low grade social organism which, lacking in integrative force, is always ready to lose its organic nature through that emphasis of individualism which arises in connection with variation from the typical social form of action.

But as we have already seen, the development of the higher social life, so far as we can judge, is determined by a reverse process, viz. by the subordination of the individual variant influences to the racial influences: by the subordination of individualistic instincts, as modified in relation to reproductive efficiency, to those of social significance.

For, as we have noted above, it is difficult to conceive how any instinct can have been fixed in a race, unless we suppose that the individual of the species acquiring the instinct has been better adapted to existence in his environment as the result of following this instinct than he would have been had he allowed variations to prevail. And in reference to the higher, the social, instincts, which we are here especially considering, it is peculiarly difficult to conceive how they can have been fixed in the race, unless we suppose that on the whole the individual is indirectly better adapted to exist in his environment, and to perpetuate his kind, as a member of a social group, than would have been the case had he not acted as a part of a social group by the subordination of his instincts in the definite order we have already described.

If all this be true, if on the whole variation from the order of instinct emphasis which Nature has impressed upon us must of necessity be repressed, and yet if under the conditions of human life this variation tends to become emphatic, then it seems clear that perfection of racial life

would seem to demand the evolution in the race of a Governing Instinct; of an instinct of a new and higher order, which would be regulative of reason in its relation to instinct; which would tend to suppress the variant principle and to emphasise the force of instinctive appeal; which would produce emphasis of instincts as a class, and subordinate processes of ratiocination to impulse; which would lead to the strengthening of the social instincts, and to the subordination to them of the instincts of individualistic import as modified in relation to reproductive efficiency.

It remains for us to enquire whether there be any evidence of the formation of such a governing instinct, and to this enquiry we shall now turn.

II.—OF THE MEANS NATURE ADOPTS TO REPRESS EXCESSIVE VARIATION IN SOCIAL AGGREGATES

§ 10. In the previous division of this chapter we have seen that in consequence of the complexity of the organic type, to which we as social beings belong, there is a tendency within us to individual variance, which at times leads to the strengthening of our non-ethical impulses; and we have seen also that this tendency is greatly emphasised as the result of conditions necessarily connected with our complex civilisation, so that we are oftentimes likely to subvert the order of impulse emphasis which we have come to believe to be on the whole necessary to racial advance.

We have therefore concluded that, as the result of the strife for racial efficiency, we should be led to look for the appearance in man of a governing instinct that would hold in check this tendency to individualistic variance; that would bring about a reinstatement of the conditions advantageous to racial advance; that would, through its expressive action, lead to the emphasis of the ethical impulses which are of so much importance to the growth of social life.

Our task, then, in this division of this chapter is to enquire whether there be any evidence of the existence in our race of such a governing instinct.

§ 11. At the start we may well note that from our point of view the problem now to be studied is relatively more simple than those with which we have thus far concerned ourselves; and this for the reason that in the search for the manifestations of this governing instinct we are able to limit our examination to the life of the human species,—because we do not need to trouble ourselves to consider at all the expressions of instinct in animals.

That this limitation of our consideration is proper will, I think, be granted when we note that no race of animals exhibits signs of the development of the social instincts in any degree that is comparable with their development in the human race; and if this be so, then it must be conceded that the ethical impulses correspondent to these social instincts must for the most part be lacking in animals; and, so far as they are developed at all, that they must be of far less importance in the lives of the animals than they are in ours. Furthermore, in the individual and tribal life of animals there is almost an entire absence of many of the conditions which in ourselves lead to the strengthening of the tendency to those injurious variations from the normal order of impulse emphasis, to which we have already called attention and to which we again refer below.

If, then, the ethical impulses are little developed in the lives of animals; and if their tribal life, so far as we can see, is less dependent than our own upon the subordination of other impulses to the racial impulses so far as these latter exist in them, then in the animals the development of a governing instinct would present little advantage, and we should not be led to expect it to be distinctly marked in their expressive actions.

§ 12. The reader will remember that in the first division of this chapter we noted certain influences and conditions which are likely to occasion the disadvantageous subordination of the social, the ethical, impulses to those of lower orders, notably to those of individualistic significance; influences and conditions which we find appearing in our complex civilisation. It seems probable, then, that if we study these influences with a view to the discovery of some means by which their evil effects may be counteracted, we are not unlikely to gain some notion of the nature of the

governing instinct which, if it exist, would function in this very direction.

In our discussion in the first division of the chapter we first noted that this tendency to the emphasis of elemental variance, and to the subordination of the ethical impulses, was necessarily connected with the fact that these higher impulses are determined by the existence of social aggregates which are of a low quasi-organic form, in which we individuals are elements, and elements which are very lightly bound together, very loosely integrated. For in our earlier study we had seen that in the lower individual organisms in which the parts are very loosely bound together, and with which the quasi-social organism is to be compared, a tendency to action of the elements for themselves, and without regard to the efficiency of the organism as a whole, will appear under anything but the most ordinary stimulation of the parts affected by environmental conditions.

If this weak integration tends to emphasise variation, tends to invert the established order of instinct emphasis; if it be a cause of the subordination of the ethical impulses to those of earlier formation, to the individualistic and the sexual; then our hypothetical governing instinct might be expected to contend against the results of this lack of integration.

It is evident, I think, that this tendency to disintegrative action, this tendency to the separate functioning of individuals as though they were no longer elements of the social aggregate, may be overcome in one of two ways—either by the acquisition of habits which will concentrate attention upon the social bonds which do exist, upon the community of interests, and upon the necessities of mutual aid: or by the reduction of the stimuli to individualistic action through a cutting off of these stimuli, either through temporary

separation from those surroundings in which non-ethical impulses are developed, or through voluntary restraint of the non-ethical impulses when they arise within us.

§ 13. If we turn to the consideration of the next point made in the first division of the chapter, we recall that we there argued that for many reasons the mere complexity of our modern civilisations tends to bring into existence that emphasis of the variant influences within us to repress which the governing instinct for which we are searching would act.

It seems very clear that the disadvantageous emphasis of the variant influences thus occasioned may be overcome by the acquisition of habits which would lead men to break away from this increasing complication of life, by a return to a simpler life in which there would be fewer distractions as there were fewer stimuli to activity. And evidently this end may be reached by involuntary or voluntary separation of men from the active turmoil of life through more or less limited seclusion in one form or another; or else by the acquisition of habits of voluntary restraint from immediate reaction to the many varied stimuli which reach the man in consequence of this growing complexity in his environment.

§ 14. Again, we have seen that processes of reasoning, which are coincident with the processes resulting in variation, tend to remain emphatic in consciousness; while instinct-feelings, and the impulses related to them, tend to disappear into that mass of unnoticed psychic states which make up the field of inattention: and we have noted that this fact is often likely to bring about the disadvantageous emphasis of the variant influences of which we speak, for the simple reason that oftentimes a long-continued direction of atten-

tion to the instincts of broader import which should guide us is required before we are able to gain any cognisance at all of their existence ; and because we are liable, therefore, in cases of strong or sudden stimulation, to act under the influence of forces which are of individualistic moment only. The governing instinct, if it exist, might be expected to function in some manner to enable us to avoid this danger.

This difficulty in our lives may evidently be overcome, if in no other way, by restraint from the actions dictated by reason, until sufficient time has elapsed to enable the less obvious impulses to produce upon consciousness the effects which are peculiar to them ; and habits of such restraint will most easily be attained during periods of voluntary or involuntary seclusion, where the man is cut off from the stimuli to action which normally reach one who is living an active life in the turmoil of a busy community.

§ 15. In the same sections of the first division of the chapter we saw that, in a manner not dissimilar, the emphasis of the variant influences within us is often occasioned by our mistaking individually acquired habit-reflexes, which have only individualistic value, for true instincts which are of racial import. The distinctive marks of the true instincts, which it is so important for us to recognise, are found in the fact that they guide many individuals, and that in their higher forms they guide a given individual under many varied conditions.

Now evidently the important distinction thus to be noted, and in which process the functioning of our hypothetical governing instinct might be expected to aid us, can only be discovered by thoughtful reflection upon the impulses which have guided our lives in the past, and which seem

to guide others of our race; and it appears that one way, at least, in which opportunity for such reflection may best be obtained will be by voluntary or involuntary seclusion from the distracting influences which bear upon us in our every-day life.

§ 16. We have seen that what we call success in life is determined largely by the emphasis of individualistic impulses, and that the desire for success is potent in suppressing the dominance of social forces; which suppression our sought-for governing instinct should tend to oppose. Surely one way in which the effects of this wish for success, and its resultants, may best be regulated is by seclusion at times from the rest of the race, without whose recognition success is an empty term.

§ 17. Finally, we have noted that the tendency to imitate the actions of others, which vary from what is typical in directions which we deem advantageous, is a powerful force leading to the obscuration of the deep-lying ethical impulses.

But clearly the best means of overcoming this danger lies in the separation of ourselves from the influence of those who thus guide our actions, of those whom we imitate, until such time as Nature's impulses within us are able to assert themselves.

§ 18. The reader cannot fail to have noticed that in each of the six preceding sections we have argued with perhaps tedious repetition that each and all of the important forces which we have noted leading to the over-emphasis of the variant influences within us may be held in check, if in no other way, by the acquisition of habits of voluntary seclusion from the distracting stimuli by which

we are affected in our normal complex life; or else by voluntary restraint for a time from reaction to the influences which surround us: it seems natural for us to surmise, therefore, that at least some considerable part of the expressions of the governing instinct, for which we are in search, will involve such restraint and such seclusion.

§ 19. This thought is so suggestive that it seems worth while to examine our experience by turning once more to introspection, and asking ourselves whether we are able to note in our own lives that this seclusion and this restraint do produce within us such an emphasis of the non-individualistic impulses of our nature as our theoretical consideration from an objective standpoint has led us to expect.

Taking up first the effects of seclusion, it seems to me that the correctness of our thought is brought out clearly when we consider what occurs when we lay aside the distractions of life at our hearth-stone perhaps; or when we lie wakeful in the quiet of the night; or when, perchance, we find ourselves alone, yet without disquietude, in some desolate region far from the habitations of man: then it is that we discover our thought turning away from the individualistic demands of the immediate present, and reverting to the consideration of matters of deeper than individualistic interest.

At such times we note the revival of longings for some loved companion whose life, perhaps alas in the days gone by, has become interwoven with our own: or perchance we find our minds filled with thoughts of family life, with plans for the advantage of wife and children, with schemes which might add to their comfort. He is a sordid being, indeed, who finds his own individualistic desires persistently engrossing his attention upon such occasions.

At such times, too, we find ourselves considering our relations to our fellow-men; the ethical impulses gaining force and urging us to overthrow mere selfishness, and to resist those demands, in one sense of a lower order, which relate merely to the persistence of our species. We find ourselves deploring our past failures to act in accordance with the ethical impulses which now assert themselves; reviewing our actions in the days gone by; bringing ourselves to a recognition of the sins and follies of youth or of the past days. And these sins and these follies, as we shall presently see, are actions which we realise in these moments of reflection to be opposed by the persistent ethical impulses which then present themselves to our minds with startling distinctness; impulses which tell of social advantage and consolidation; persistent impulses towards unselfishness and purity; impulses against theft and deception and covetousness; impulses towards benevolence and sympathy, and against injury to one's neighbour. Such, I am confident, is the experience of each of my serious, thoughtful readers, an experience which becomes more and more clearly defined as the habit of reflection is developed.

If, turning from the consideration of the effects of our separation from active life, we study for a moment the effects upon ourselves of voluntary restraint from response to the individualistic demands of our nature, we see the point I would make still more clearly defined.

If a man who is attacked by an enemy repress the instinct within him which would lead him to strike his opponent, then note how immediately instincts of wider scope engage his attention; how immediately the general relation of himself and of his enemy to the social environment presents itself to his mind. Instead of busying himself with thought of resentment he finds himself considering

the results, not only to himself, but also to those whom he loves, which might follow his act; thinking, perhaps, indeed, of the punishment which will directly affect him, but, if he be a man of any character, finding himself still more concerned with thoughts of the indirect sufferings which will be likely to come upon those dependent upon him.

The lover, to take another example, represses the active manifestation of his desire; and at once appears to his mind the thought of the many indirect results to himself in relation to his social life, and to the one whom he loves, which would follow such submission to passion as this strong instinct, which he has resisted, would demand; and the recognition of these results, thus emphasised, will serve as a check upon his passion ever after.

These examples are sufficient to call to the reader's mind many others, which will lead him to agree without hesitation, I think, that seclusion, removal for a time from the turmoil of life, which involves voluntary reduction of the stimuli to individualistic or sexual action; and restraint, which involves voluntary repression of our tendencies to any immediate reaction: that both are effective in bringing us under the influence of thoughts and impulses which are persistent within us, although often unemphatic in consciousness; which are always of wider than individualistic import, and in many cases have marked racial significance.

§ 20. It appears quite clear, then, it seems to me, that voluntary seclusion from the stimulations of our complex and active life, and voluntary restraint from individualistic reaction, will both tend to be effective in producing the very emphasis of the ethical impulses in opposition to individualistic demands which we have concluded to be necessary if a higher development of the social organism is to be reached. And, as we have already said, it is naturally sug-

gested that if there exist within us a governing instinct having for its function this emphasis of the ethical impulses, and the enforcement of the order of impulse efficiency which Nature has established within us, then in all probability such voluntary seclusion from the world, and such voluntary restraint from immediate reaction to individualistic demands, will be likely to appear as prominent expressions of this governing instinct for which we are in search.

How can any one who has followed our train of thought fail to be impressed with the fact, which forces itself upon my own mind, that these habits of occasional seclusion and of hourly restraint are the most emphatic expressions of our religious experience?

The leading seems so clear that I shall, without further introduction, ask the reader to consider with me the evidence that leads me to believe that religious activities are the expression of a true instinct, which we may properly speak of as the religious instinct; and that the function of this religious instinct in the development of our race is to bring about the subordination of the individual variant influences, and to affect the emphasis of the racial influences; and at the same time to emphasise within us Nature's established order of instinct efficiency.

CHAPTER IX

IS RELIGION INSTINCTIVE ?

I

§ 1. I IMAGINE that some reader of the previous chapter will be inclined to ask what warrant we have for the assumption that religion is instinctive ; what reason there is to believe that our religious activities are the expression of a true instinct. It will be well, I think, to consider this point with some care before we proceed further with our argument.

If an appeal to common-sense be of any value we do not need to look far for an affirmation of the instinctive nature of religion. I find, by questioning, that intelligent people very generally reply affirmatively if asked whether they consider religion to be instinctive, and philosophic writers¹ are also often found taking the same position ; indeed the use of the term "instinct" in relation to religious activities in common speech is so usual that there can be no doubt this notion is generally held, even though the implications involved in the assertion are in no sense realised. But we cannot take this common-sense view without question, we must examine the subject from the standpoint of the psychologist.

As we have already seen in our fourth chapter, our

¹ Cf. e.g. Renan, *Dialogues Philosophiques*, p. 38 ff.

instincts are springs of action which exist within the organism: our instinct actions occur because we are organisms, and because as organisms we inherit with our organic structure habits of action which lead to the attainment of certain ends which have significance for the organism; and we inherit these habits in general because our ancestors have become better adapted to their environment in consequence of the recurrence of these tendencies to act in certain specific ways upon the appearance of the appropriate stimuli.

Instinct actions are thus determined first by their organisation, and especially by some biological end which this organisation serves.

I shall not hope in this chapter to establish the point that the actions expressive of religious feeling are organic in their nature; the proof of that will appear as we proceed with this particular discussion, and will become convincing, I think, before we conclude this consideration in the next chapter: nevertheless, I must say a few words at this juncture in relation to this subject.

As we have already seen we usually take as examples of typical instincts those particular instincts which express themselves by what seem to us to be invariable actions occurring in definitely co-ordinated relation to one another, so that the actions appear to be always the same, and to be aroused always by the same stimuli.

An example of such a "typical instinct" we find in the action of the baby alligator which rushes with open jaws at any object it perceives as enemy or prey: the actions determining this rushing and attack being exhibited always apparently in the same relation, and being aroused always by the same classes of stimuli.

But as we have also seen, the definiteness and the invariability of the co-ordination of these actions are relative

definiteness and relative invariability only. This became evident when it was noted that the efficiency of many instincts even of the lower types depends upon the trend of the activities they induce even where there is a certain degree of variation in circumstances of stimulation, or in the stimuli themselves, and consequently in the reactions to these stimuli. The reader will remember that we illustrated this fact by recalling to his mind the variations of action and co-ordination noted in the young chick in its instinctive search for food-supply; the general end being reached through slightly varying co-ordinations of action.

It will also be remembered that as we studied instincts of a higher type we found less definiteness and invariability of reaction, and a marked preponderance of cases where the guidance of our actions to the production of certain ends is attained by the strengthening of *trends* of action which come to persist through many differences of stimulation and through many variations of reaction.

This fact was illustrated by reference to the instincts that relate to the foundation of the family, which act indirectly through many efforts tending to the accumulation of food or property by the man, and to protective care of the young by the woman: nobody hesitates to speak of the paternal instincts nor of the maternal instincts. It was illustrated again by reference to the ethical instincts which tend to bring about social co-operation and social consolidation, and this through the most varied of actions that are often apparently guided by the most varied of conscious aims which often seem to the actor to lead in any direction rather than towards the racial ends we believe these social instincts subserve; we agreed that no one should hesitate to speak of the patriotic instincts, or of the benevolent instincts.

Now I think it will be evident to the reader that if the

governing instinct for which we are searching exist at all it is likely to appear, as do all the higher instincts, as a most general trend of action evidenced in many diverse forms of activity ; and such are our religious expressions.

It is evident that when we note certain activities which we surmise may relate to an end we are considering, we need not conclude that they are not of an instinctive nature because we find their trend difficult to trace in many ways.

I am in complete agreement with Professor Morgan when he cautions us that instinct actions must be carefully separated from those actions which are attached to them by accumulated experience, or by imitation, or by "tradition" ; nor can there be any question that with the actions we are discussing this separation is exceedingly difficult. But on the other hand I hold that even in cases where this separation is impossible in many directions, we are nevertheless warranted in suspecting the existence of a true instinct, provided we are able to discover some biological end which is subserved by the general trend of a series of varied activities.

That we are able to discern the biological end which is subserved by the actions expressive of the religious feelings I have already suggested. The hypothesis is a tentative one, but I shall hope to show in the next chapter that there is much to be said in favour of its correctness ; and this I shall attempt to do by accumulation of evidence which will enable us to sift away much that is extraneous, and will place in relief the important, relatively stable, elements which appear in all the varied religious expressions.

§ 2. It seems to me that a strong argument in favour of the instinctive nature of religious expression lies in its universality in man.

Observers of the deaf and dumb, and of certain savage

tribes, tell us that those thus cut off from the influences of civilisation find difficulty in grasping any of the conceptions which we are wont to think are inherently attached to religious functioning. But even if we grant the facts, I would beg the reader to note that these conceptions, these beliefs, although they are usually attached to this functioning, are not of its essence: in very many cases they have evidently grown up after the functioning has become well established, and as a means of explaining the actions themselves in terms of other experience; evidently if these unfortunates have remained uninfluenced by those stimuli which normally call the religious instinct into activity, we should not expect to find in them these conceptions which we find in others who have been stimulated to these activities from early childhood.

It may indeed be true, therefore, as some observers tell us, that there are certain savages, and some small proportion of the degraded or unfortunate of our own race, who show no tendencies to religious expression, and who can formulate no religious thought: but so far as this is true,¹ it is probably due to a lack of the conditions which usually stimulate to such expression; and we surely should not be led by this fact, so far as it is a fact, to pronounce in general against the existence of a true religious instinct in man by which we may account for his religious expression and impulses. As well might we deny the existence of the maternal instinct because we find human mothers who seem to be lacking entirely in maternal feeling; as well deny the existence of patriotic instincts, or of benevolent instincts,

¹ I agree with Wundt that the mass of evidence for the existence of tribes that have no religion, collected especially by Sir John Lubbock, proves only that the observers upon whose statements he relies partly meant very different things by the word "religion," but partly also were not markedly successful in their attempt to explore the unfamiliar world of savage ideas. (*Ethics*, vol. i. p. 60, English translation, Titchner, *et al.*)

because a small proportion of men are cowards, or utterly selfish and cruel.

It is perfectly true of course that the masses of the people are influenced to religious expression from their early childhood by habits enjoined upon them by those who guide their young lives, or by imitation of the actions of those whom they fear or admire. In the same way, as we have already seen, many of the deferred instincts are fostered and encouraged by the inculcation of habits of action which would naturally some day become spontaneous. The plays of childhood tell of duties of mature life, and ethical habits which are not natural to children are forced upon those of tender years.

It is indeed barely possible theoretically that if a child were brought up without any religious influences whatever, it might show none of the characteristic religious expressions ; although satisfactory experiment in this direction could scarcely be made, for the simple reason that religious expression direct or indirect is so widespread in all that we see and hear in life, that it would be all but impossible to make an experiment of the kind mentioned which would be conclusive.¹

¹ Evidence in this matter is difficult to find, but the cases mentioned below seem to corroborate the view taken above, and are given for what they are worth.

A friend of mine has twin daughters. Impressed with the importance of avoiding attempts to force upon undeveloped children conceptions which they are not prepared to apperceive, the mother deliberately aimed to avoid all reference to religious subjects in the presence of her girls, whilst she felt that they were too young to appreciate the significance of religious observance. They were not taught to pray, nor did they know the word God. At an early age they were placed with a few others in a small private kindergarten class, the teacher of which was entirely in sympathy with the mother and took pains to carry out her wishes in reference to the mention of religious subjects. The only suggestion of religious significance which, so far as can be known, could have affected them was in connection with the singing of a prayer song in which their "Heavenly Father" was mentioned. After they had been in the class about a year one of the girls upon going to bed asked her mother if she could not "say a little prayer": and she was taught to pray. The other

But even if we imagine that such an experiment as we have above spoken of were successfully made, even if we suppose that a child were brought up without being affected by any religious influences whatever, and that it showed no evidence of the rise within it of anything resembling a religious instinct by the exhibition of any of the characteristic religious expressions; even then we should certainly not have proved that religious activities are not instinctive: as well might we attempt to prove that the little alligator has no instinct leading it to snap at its enemy, by experimentally eliminating from its environment the stimuli which bring the instinct into evidence.

As a matter of fact the mark of the existence of an instinct within us is not the appearance in all men of certain activities, but rather the aptitude for the production of certain co-ordinated actions, of certain trends of action, *if the appropriate stimulus be given*. And if we accept such a view the instinctive nature of the religious force within us must surely be granted: for certainly one will scarcely deny that civilised man has a natural aptitude towards religious functioning, which is brought out under the most unexpected circumstances, upon the occurrence of the most subtle of stimuli.

I of course do not pretend to hold that all of the girl expressed no desire to pray until some months later. In the latter case the child may have imitated the sister; but this sister's first request, under the circumstances, indicates the existence in her of an aptitude for the activities connected with prayer which it seems to me can only be accounted for by the supposition that an instinctive force within her called for expression in this manner upon the presentation of a very delicate stimulus.

I have found another case in which the mother, who is a woman of marked intellectual distinction, has adopted the same course in the bringing up of her daughter, who is a very bright girl. In this case the girl has shown no such marked signs of religious expression as were noted in the first case cited: but, on the other hand, the mother assures me that the readiness with which the girl assimilated the higher religious conceptions when they were brought to her attention, has convinced her that the capacity for religious activity was inborn within the daughter, was truly instinctive in its nature.

elaborate religious expressions of which we shall treat in the next chapter would appear in the lives of men who had no tradition and no example given them by those around them : but I do think that the existence within us of an inherited organised aptitude for the production of these expressions is indicated by the fact that, notwithstanding that the activities involved are in general distasteful and apparently on their face disadvantageous in themselves, as I shall attempt to show in the next chapter is the case, nevertheless they still persist in the race and seem natural to the men in whom they appear.

Given the stimulus which on its mental side involves the perception of our incapacity to cope with the problems of life, the recognition of our weakness, the feeling of doubt as to our course of procedure, then immediately appears the general mental attitude of submission and dependence and restraint coincidently with the religious expressions which we shall presently study in detail.

Even if it be claimed that I exaggerate the importance of the part of these activities which is due to instinct, and understate the importance of the part which is acquired as the result of life experience, nevertheless it seems to me it must be granted that some inherited instinctive tendency must exist within man which is made the basis of this elaboration by continued imitation of these special customs and habits of our forefathers, for otherwise it is impossible to comprehend why these special forms of activity are so persistently imitated by rising generations when other forms of activity are not repeated.

But if even this be held to be an over-statement I think it must be granted at least that we probably have before us in the religious activities the marks of an instinct in the making. All instincts must have been formed as the result of the acquisition by a race of valuable habits of action,

and if we can show, as I shall attempt to show in the next chapter, that these religious habits and activities are of value in our racial life, then a strong presumption exists that they are retained in the race because of this value, and that they will in all probability become instinctive in the future if it be denied that they are instinctive to-day: if they are persistent and are of value they will probably eventually become fixed in the race, for those of us in whom the essential tendencies arise spontaneously will be likely to win in the struggle against those who develop the activities only as the result of imitation of others whose influence is irregularly felt.

§ 3. Here I would beg the reader to recall the fact already referred to in the second section of this chapter, viz. that the governing instinct, if it exists at all, must be one which would be appreciably developed in man only; for we know of no race of animals in which the ethical impulses are highly developed, and none in which the tribal life is noticeably dependent upon the subordination of other instincts to social instincts, so far as these latter do exist in them.

It is an interesting corroboration of our supposition, therefore, to find that the religious activities, so far as we know, are developed in man only. It is true that certain attempts have been made to trace evidence of fetich worship in the higher animals;¹ but the actions observed are all explicable in terms of surprise and the fear which follows surprise; and, as we shall presently see, although the arousal of fear may possibly have led in the beginning to certain primal forms of religious expression, it can scarcely have led to the persistence of the tendency to the appearance of religious expression in its many modified forms;

¹ Cf. Romanes, "Fetichism in Animals," *Nature*, xvii. 168.

and this fact of persistence is after all the matter of highest importance in our consideration.

But furthermore, not only do we find that religious expression is limited to man, but we discover, as we should expect under our hypothesis, that it varies in correspondence to the changes in man's character; that it is developed in its most complex forms where man's tribal life is most complex. If religious activities be the expression of an instinct which has to do with the emphasis of impulses that are important for the development of social life, then surely we should expect just what we thus find, viz. that its highest developments appear in general in those races in which social consolidation is most advanced; it seems to me that the history of our race proves this fact.

It is indeed true that religious inspiration, so called, has often been, and is still, gained in solitude; but the power of a religion is tested by its influence upon the social life of the community in which it is preached. If we refer to the history of ancient civilisations we find the complexity of their religious conceptions and expressions in a general way co-ordinate with the complexity of their social fabric.

In our own day the nearest approach that we find to a man without religion is the barbarian of the icy plain, the savage negro of the deep forest, the cannibal of the desert island; and with all these low types of mankind it must be agreed that social life and the social instincts are at most but embryonic. Among all the civilised races, on the other hand, religious expression is found, and the more complex their social organisation, the more prominent become the actions of religious expression in the history of the people.

§ 4. Religious activities like the expressions of all true instincts seem often to be spontaneously developed in man. The masses of mankind do not have to be argued into the

expression of religious feelings: rather is it true that rationalistic or other barriers must be raised if we are to prevent the expression of the religious force that is found in men in varying degree. And even then, however fully we may acquiesce in the dictates of others, or be led by argument; however much we under such influences repress our religious impulses, they still exist within us, calling upon us at times to give them play, and forcing themselves to the front in moments of weakness or despair. The most pronounced of atheists seldom fails to pray in the face of terrible danger or deep sorrow.

§ 5. I wish now to lay especial stress upon a fact which has been incidentally discussed in what has preceded this, but which is usually little appreciated; upon the fact that the activities involved in religious expression must be held to have some import to the race, must have some biological function; and that this is true whether we agree or deny that a religious instinct exists within us.

Let us assume in the first place that a religious instinct exists which, broadly speaking, is developed in all of mankind, then evidently we are forced to the conclusion that the religious instinct must subserve some valuable function in the biological development of the human race: for, as we have so often said above, it is exceedingly difficult for us to conceive how any instinct can have arisen, how it can have become developed and elaborated, and, more than all, how it can have persisted from generation to generation, as has this religious instinct so far back as we are able to look into the history of the earliest of civilisations,¹ unless it has fulfilled some function of value in the development of the race.

¹ The late excavations in Mesopotamia show us remains of temples and altars which our archaeologists tell us probably date back somewhere from 9000 to 10,000 years.

It is of course always possible, as we have seen in our previous argument, that certain habits of action may have become fixed in our race which have no bearing whatever upon the persistence of the race ; habits which are inherited because they belong to a race which has come to persist for reasons entirely unrelated to these habits : but, as I have also argued in preceding chapters, this supposition is difficult to sustain in relation to any instinct which is widespread and persistent in a race, as is the case with the religious instinct in man. And on the whole we are compelled to assume that there is little probability that the religious instinct is one of the few exceptions to the general rule which connects instincts with functioning advantageous to the race in which they appear.

It is to be further noted that it is quite possible that instincts of no importance may be retained in animal life for the simple reason that they have developed co-ordinately with some functionings which are of importance to the race, as "by-products," so to speak ; that they may be of no advantage to the race, and in fact may possibly be of positive disadvantage, and may be retained only because they are necessarily connected with the existence of instincts which are of very great advantage, or of sufficient advantage at least to carry the burden of the neutral or disadvantageous functioning of the co-ordinate instinct. This is of course a possible hypothesis if no better one will serve.

It has been suggested to me, for instance, by my friend Professor Hodder that it would be quite possible for an opponent to grant that religious activities are instinctive, and yet to hold that they are altogether disadvantageous to man ; that they persist only because they have grown up in necessary connection with the rise of man's intellectual activity, which has enabled him to persist notwithstanding the drag on his advance determined by the existence of the

religious instinct. Although I think this a possible argument, it seems to me to be one which strains our credulity. For in the first place we have to my mind little evidence that the growth of religion is so indissolubly connected with intellectual activity as the hypothesis assumes. There seem to be no apparent reasons why the beginnings of intellectual activity should have failed to appear in those early progenitors of man in whom the germ of the religious instinct had not appeared, and in that case the race in which the two appeared in conjunction would have been eliminated if religious activities had been disadvantageous.

Furthermore, there is a good deal of evidence that the rise of the religious activities was anterior to the rise of speculative intellectual life; that the theories of the universe, with which we usually associate religion, were adopted in great measure to account rationally for series of religious expressions already found by the awakening man as part of his habit of life.

Furthermore, unless we are able to show in animal life a goodly number of cases of similarly complicated activities which are distinctly disadvantageous, and which nevertheless have persisted in the race in which they appear because they are necessarily connected with the existence of other habits which are sufficiently advantageous to bear the burden of the disadvantageous by-product, then such an hypothesis as that which Professor Hodder suggests as possible is rendered difficult of acceptance in consideration of the very important development of religious activities. Such examples of such instincts I do not think can be educed; at all events not in sufficient number to weigh in favour of the hypothesis. Furthermore, the hypothesis is rendered far less tenable if we are able to discover any signs of distinct racial advantage connected with the functioning of the instinct under consideration; and before I complete this

part of the book I think I shall be able to present many reasons for the belief that the functioning of religious expression tends to social advance, and is therefore of biological advantage to the human race.

§ 6. But even if we assume that religious activities are not instinctive, but are entirely due to tradition and to the imitation of the example of others, even then it seems to me that we are compelled to assume that the activities have functional import in the development of the race. The argument in the previous paragraphs applies here also to show that these very complex habitual activities can with no degree of probability be held to be either of neutral effect or of disadvantage to the race in which they persist: constantly recurrent as they are, it is almost certain that they must be of advantage to the race.

To compare them with certain relatively simple activities, we may consider the activities of the chick in relation to drinking, to which we have referred above. In this case Professor Lloyd Morgan claims that while the action of swallowing is instinctive, the actions antecedent to the swallowing are not instinctive, but are the result of imitation,—of what we may call the “traditions” of the race: the mother hen habitually teaches the chick to dip its bill in the water. But the biological value of this persistent “tradition” is self-evident; for granting the correctness of Professor Morgan’s position, but for this habit of the mother hen and the imitation by the chick the little birds would die of thirst; and this value is shown conclusively by the very fact that in one species of birds which Professor Morgan has discovered, where the mother bird has acquired habits which lead it to desert its nest before the eggs are hatched, there the chicks which have had no aptitude to dip the bill in the water have, as he surmises, died off, and

the persisting race has acquired as a complete instinct the activities which necessarily precede those of swallowing.

I shall assume in what follows that religious activities are the expression of an instinct, but my argument as to the biological end subserved will hold, I think, even if we assume that these activities, so complex and so persistent in the race, are wholly due to "tradition" and imitation.

Taking it for granted, then, that these activities, whether truly instinctive or not, have functional significance in the development of the race, I shall present a tentative hypothesis as to the nature of this function. This hypothesis I have already stated briefly, and I shall devote the next chapter to an attempt to show in detail that religious expressions, of ceremonial or of other kinds, whilst on the whole of little advantage and often of distinct disadvantage to individual life, are on the other hand advantageous on the whole to the tribal life of the social organism, which we believe to be beginning to develop. I shall further attempt to show that this advantage accrues through the subordination of the individual variant, elemental, influences within us, and the emphasis of the racial influences; this subordination and emphasis being brought about by, or in necessary connection with, the habits of action which form the expression of this religious instinct; we being able thus to account for the persistence of these habits of action, although we recognise, as I have just said, that to us as individuals they are apparently at times of disadvantage and ordinarily of no appreciable value.

II

§ 7. Before making the attempt to verify the hypothesis which I have above outlined, I must ask the reader to turn his attention for a moment in another direction, in which

clear conceptions will materially aid us in this process of verification.

Notwithstanding that it may compel me to assume certain points that will not be illustrated fully until later, I wish here to make some attempt to account for the prevalent notion that the actions expressive of the religious instinct, or resultant therefrom, are dictated to us in some very special and peculiar way by some power without ourselves. For, according to the view I am about to maintain, the value of seclusion from the stimulations of active life, and of voluntary restraint from reaction in connection with these stimulations when they are not or cannot be avoided, and the value of all other religious expression as well, lies in the opportunity that is given to us to feel the force of certain persistent impulses *within our very selves*, which are of little individualistic value, but which have great racial significance. If this be true, the value of our action evidently cannot be due to our obedience to a commander without ourselves. It is desirable, therefore, to endeavour to gain some notion of the basis of the conception that these latent impulses, which only occasionally become prominent within us, are forced upon us from without.

It will serve our purpose best at the start to say a few words concerning the form in which this emphasis of the later-formed instincts might be expected to present itself to consciousness.

If the argument which has preceded this be correct, if the later-formed instincts relating to social life are effective rather through the wide general trend of the activities they induce than through the forcefulness or quickness of reaction to the stimuli which call them out, then it seems clear that they will not be likely to force themselves upon our attention as the impulses of individualistic significance, and those

relating to reproduction, will surely do ; for these latter are called into existence by presentations of a relatively powerful nature, and must in most cases function promptly to be of service.

But where, for any reason, an appropriate stimulation and individualistic reaction are absent, and where the instincts relating to reproduction are not called out, then the tendency to act in accord with the trend determined by the social instincts must necessarily become more prominent, and the ethical impulses then may gain strength to sway our lives.

Now the primitive man in whom these social instincts are just beginning to develop would with difficulty have his attention turned to the existence of the impulses they determine, except under conditions of individualistic restraint which are foreign to the habits of the savage ; he would therefore with difficulty recognise them as definite impulses, as distinct leadings ; and they would be likely first to gain marked attention if they happened to appear in the form of hallucinations which would startle the one who saw the hallucinatory vision or heard the hallucinatory voice, and would gain power with him, and with neighbours to whom he told his tale, because of the mysterious manner of their occurrence.

I wish to show in what follows that in all probability we gain this notion of the exterior origin of these higher impulses because, under the influences which go with religious expression, they often still appear, and more often in the past have appeared, in the form of hallucinations, or in forms closely related thereto.

Hallucinations, as my reader well knows, are those deceptive perceptions which arise in our minds without any such stimulation reaching us from the environment as is usually necessary in order to bring these perceptions into

existence. The one experiencing the hallucination sees clearly, for instance, some one sitting in a chair near him, although many other witnesses tell him that the chair is empty ; if no others are with him to tell him of his deception he is likely to believe that he has seen a "ghost." Or perhaps he hears his name called when all others in the room with him have noticed no sound. These are instances of hallucination of the most ordinary type.

Hallucinations are caused by the abnormal strengthening of some idea within the man to so great an extent that he is forced to believe that the stimulations from the environment which in his experience have usually produced similar ideas have in this case also reached his sense organs. Indeed in some extreme cases expert observers are led to think it likely that a stimulation of the sense organ actually does accompany hallucinations of vivid form, although in such cases the mental state is aroused by action within the subject and not by action in the environment.

We know that hallucinations are indicative of morbid nervous conditions, that they are symptomatic of mental derangement, which may be temporary or persistent ; but we also see nowadays that they are easily explicable in terms of normal mental action ; and they are no longer looked upon as mysterious by the neurologist nor indeed by the average highly educated layman.

§ 8. There is a special consideration which also leads us to see why these hallucinations must have been exceptionally impressive among primitive men, and the messages given by them therefore especially effective ; and why they must naturally have been referred to influences from without the man impressed.

In the early days of man's self-consciousness there is no reason to believe that these hallucinations would be thought

of as arising from within the men who experienced them; on the other hand, it is most natural to suppose that they would be explained as being due to the action of "spirits," such an explanation conforming with the belief current in those early times that the air and the objects surrounding men were widely populated by spirits¹ which to the ordinary man, under usual circumstances, were invisible and silent.

I do not wish to make too much of the animistic theory so called, the theory which deals with man's natural attribution of spiritual life to inanimate objects; but I think it cannot be questioned that the young of our own kind have a tendency to such attribution which they find it necessary to out-grow. My own daughter, at less than five years of age, showed very clearly to me by certain remarks of hers that she supposed the leaves of the trees to be self-active, and that she thought they produced the wind which blew on her face. If such a tendency be natural to the young to-day, notwithstanding the many educational influences which work to suppress it, it is highly probable that the mind of the savage must have found it difficult to avoid attributing to objects around him some spiritual power like the force felt within himself, which he recognised as leading him to self-guided movement. In fact we have evidence in favour of this contention in the existence of many forms of superstition, remnants of these time-honoured beliefs, among our own educated people, in the stories of fairy-land and in the superstitious fear of ghosts and of spirits that are supposed to appear only in the hours of darkness.

¹ It is important to remember, as Dr. H. M. Stanley has said [*Psychological Review*, vol. v. No. 3], that what we call "spirits" were inconceivable by primitive man, and are equally so by savages to-day, who look upon what we speak of as the spirit world as made up of real physical individuals of a different form from themselves, and yet in some respects like themselves.

This animistic theory had doubtless become much emphasised in the mind of the more thoughtful of men in early days, from the fact that it furnished a very simple explanation of the dreams that occur during normal sleep, and of the speech and action of somnambulists, and finally, what interests us especially here, of the actions of those who passed through trance states, and of the statements of the entranced as to what they saw and heard while in the trance. For these phenomena all seemed to point to a temporary displacement from the body of the spirit that was supposed to dwell within it during waking life, and told at the same time of strange spirits that took possession of the person of him who had fallen into the trance, and of mysterious visions, but especially of voices, that spoke to or through the dreamer.

Then again it not infrequently happened, as it occasionally happens with us in our own day, that the occurrences depicted in the dreams really came to pass later ; suggestions were given of the presence of diseases which really existed although they had been unsuspected, but which presently manifested themselves ; notions of dangers which were real and avoidable, suggestions of advantageous actions which were followed with good result, came to the dreamer merely because they could not occur distinctly in the man's consciousness during the distractions and vivid consciousness of waking life.

We know that these dreams, and the hallucinations that were so closely related to them, were due to bodily or brain reactions of a kind that corresponded with no distinctive mental states that could be attended to in waking life ; such reactions as are coincident with our experience in ordinary dreams, but especially in the states allied to what we call nightmare,—states which have in later days found so many illustrations in the phenomena of automatic writing

and the like, and in those thoughts and actions which are attributed to a sub-liminal consciousness.

We to-day realise that the voices and visions of dream life are closely related to our normal waking consciousness, being but elaborations of revivals of the past, and of imaginations of the future; and that they develop sometimes as they do in normal consciousness we acknowledge in the fact that our every-day reverie trains of waking life are often spoken of as "day-dreams." That they sometimes develop in such form as would not naturally appear in normal states of consciousness does not prevent our recognition of the fact that they are closely allied to the images present to us in waking life; for it is perfectly easy to show that these phenomena are not far separated from the occurrences of normal psychic existence.

In our highly elaborated life the visions and voices of the dreamland which impress the less developed man are less emphasised than are other allied results of active mental life which arise during our sleep. We awaken with the recognised solution of a problem that has worried us during the days past; we feel that the solution has been due to nothing that we can connect with our present ego. In olden times we would have thought we had been given the answer by the God whom we especially worshipped, or by our patron saint: nowadays we say that the solution was reached by what is called "unconscious cerebration."

But we also recognise that what is practically the same psychic phenomenon is found in normal waking life where we discover suddenly the hidden meaning of some set of facts over which we have been pondering for years.¹ As a

¹ A well-known example of this action in waking life is given in the discovery by Hamilton of the principle of Quaternions, whilst one day he was crossing what is now called the "Quaternion Bridge."

matter of fact this form of quasi-"revelation," which by most people is regarded as extraordinary, is more commonly experienced than it is generally supposed to be, as will appear if we will but look for it in our lives, although it is seldom emphatic enough to be noted by the common mortal.

But granting all these facts so familiar to us in these days, it certainly is not surprising that these dreams came to be thought of as due to influences from without, and were supposed to have prophetic significance; and that the hallucinations of voice and of vision, in the shape of symbols or gods or ghosts, that occurred from one cause or another, were thought to have a common origin with the voices and visions of dreamland, and to have especial prophetic importance.

§ 9. At this point let us consider more fully the claim that the conditions under which hallucinations are produced are conditions that would be likely to bring into prominence the impulses of wider significance, for the very reason that they tend to preclude response to stimuli which under normal conditions would give rise to individualistic reactions.

In extreme states of hallucinatory impression the one who is impressed falls into what we know as a trance state. In trance states some or all of the senses which bring to us our knowledge of the outer world are usually benumbed: the person "stares at vacancy" perhaps, or pays no attention whatever to his or her surroundings, and in general shows a total lack of that power to concentrate the attention upon the outer world at large which is so necessary for the perception of those objective conditions in the environment which lead to individualistic reactions. The one who perceives the hallucination may indeed fall into a state which is so morbid as to be indistinguishable from catalepsy.

Where the hallucination is not accompanied by such morbid conditions we nevertheless have of necessity a repression of reaction to environmental stimuli, a concentration of thought upon states of purely subjective origin: how else can we explain the higher emphasis of those subjective states, the deceptive perceptions, which are not stimulated from without us, and which, psychologically speaking, make the essence of the hallucinations we are considering?

If under conditions which produce hallucinations the tendencies to individualistic reaction are reduced, then it is fairly clear, in accordance with our argument in the previous chapter, that in these states the non-individualistic but more broadly persistent impulses will be enforced, and will be liable to be emphasised. And it is most natural that these hallucinations should in large measure have to do either with (1) those instincts which relate to the persistence of the species; or more especially with (2) those tribal instincts which produce within us the distinctly ethical impulses which are principally emphasised in religious teaching; or with (3) conceptions of duty in reference to these instincts, or religious customs that have become prominent because they have fostered these instincts.

We find this suggestion verified if we study, for instance, the visions recorded in the Old Testament Scriptures, which are especially appropriate here because they are generally supposed to have religious significance.

We note (1) abundant instances of such visions which refer to the instincts that relate to the persistence of the species. Abram is represented as having many visions which taught him that he was to be the father of great nations, whilst yet his wife was childless, and he an old man, she an old woman. Isaac too had visions in which

he was told that his seed should multiply as the stars of heaven. Jacob also before he had begotten children saw the ladder open to heaven, and heard the voice telling of the great race of which he was to be the father ; and again at the time when his name was changed to Israel did he hear the same message.

Of those visions or voices (2) which relate directly to the strengthening of the ethical impulses, which we have seen to have special social import, perhaps the most notable is the vision and aural command which we are taught was vouchsafed to Moses on Mount Sinai, at which time it is generally believed he had given to him the famous ten commandments which have been of such pre-eminent importance in the ethical regeneration of men. Samuel again is "called" to protest against the immorality of the sons of Eli. The visions of Jeremiah, of Ezekiel, of Daniel, of Zechariah, were all followed by commands, coming as these prophets thought from without themselves, urging them to lay aside individual fear, and to preach of the ills which must result from the sins of the people against the higher code of social morality. Jonah in his first vision learns the same lesson ; in his second vision he is taught to sink his individualistic disappointment at the failure of his prophecy, and learns a social lesson of pity and sympathy with those whom he had cursed, but who had repented.

Turning now (3) to the consideration of those hallucinations that relate to conceptions of duty having indirect reference to the non-individualistic instincts, we find the same corroboration of our hypothesis.

The legend of Abraham's sacrifice of Isaac evidently tells of barbaric custom that led to the sacrifice of the first-born son. But in the message, which Abraham felt he gained from without, we find record of the forcible breaking upon his mind of the thought, perhaps only dimly grasped, that

the sacrifice of his beloved son, although demanded by time-honoured custom, stood in opposition to wide-reaching impulses which guided his life; moreover that such sacrifice could not in itself be of value to God as he conceived him; that it must be symbolic; that all the value of this sacrifice for himself at least could be obtained without the loss of his cherished heir, by the substitution of the ram from the flock.

Elijah listens to the wind and to the earthquake, and sees the blasting fire, and then hears a "still small voice" bidding him to lay aside his personal fear, to forget his chagrin at his apparent lack of success, and to take up the duty which would lead to the overthrow of the immorality encouraged by Ahab.

In the New Testament we find recorded a vision appearing to St. Peter which taught him to call nothing common or unclean. This gives us a case, quite in line with our argument, where an accidental variation had settled into a habit of a people, and had almost suppressed in them the deeper instincts which should have led them to a recognition of social brotherhood. It required a startling hallucinatory enforcement of the innate social instincts opposed to this custom-fixed individualism to bring St. Peter to see the error which had crept into the life of his people.

There are visions recorded in the same scriptures which relate to individual effectiveness; but these are relatively few in number.

It is of course impossible to say of all these records of supposed visions and aural messages, that they are correct descriptions of actual occurrences to actual men; but even if they should be shown to be purely mythical, on the other hand, it can at least be well claimed that they could not have persisted in the folk-lore of the people from which

they were derived unless they had had some foundation in fact, and especially unless they had been in accord with the repeated experience of the men who had handed them down from generation to generation.

It is to be noted also that it cannot be claimed that all hallucinations occasion emphasis of the later-formed and higher impulses ; for hallucinations are morbid phenomena and naturally appear persistently in neurotic patients. Still all these examples, to which many more might be added, even though they be shown to have had varying significance other than that emphasised here, nevertheless at least indicate clearly that average men, considering their own experience of life, have found, and still find, themselves ready to accept the facts which we express when we say that the hallucinatory command, as it commonly occurs, leads in general to the suppression of individualistic impulses, and to the strengthening of those that have broader racial significance.

It may be noted here that the processes above considered are not far removed from those brought to our attention in many of the trance states that "spiritualistic" and hypnotic experiences call to our notice to-day ; and it is to be remarked that the so-called "spiritualistic" messages, as received by serious people, when they are not wholly frivolous, most often relate to ethical matters, or to religious mysteries.

§ 10. But clearly if our argument be valid, it is to be expected also that these hallucinatory messages may relate not only to those special instincts of social significance which we have been considering, and which are usually connected in our minds with religious observance, but also to all of the instincts which have social import. Not only should we expect them to speak with force against murder,

and theft, and adultery, and in favour of sympathy and benevolence, but we should also expect upon occasion to find the voice or the vision dictating patriotic action, and emphasising the art-impulses which relate less directly, but none the less surely, to social consolidation.

And when my reader considers the subject he will at once realise the fact, which is not in general sufficiently appreciated, that these visions and voices are not restricted to the realms of those ethical instincts with which mainly religion nowadays is very generally thought to deal; but that they are also vouchsafed to enthusiasts in whom these other social traits are developed. Seclusion, fasting, the emphasis of a persistent idea, will bring the voice of his God to the religious devotee; but as well will they give the vision and the voice to Moses at the burning bush, to Gideon at the wine-press, to Joan d'Arc, leading each of them to patriotic fervour; and as well gain the guidance of the muse for the poet, the painter, the sculptor, leading each to artistic accomplishment. It is said of Puvis de Chavannes, who has given to the world the decoration of the large hall in the Sorbonne in Paris, that before he began his work he spent days amidst the scaffoldings, merely contemplating the wall surface upon which he was to work, and he tells his friends that before he touched his brush he saw clearly before him the decoration, exactly as we see it on the wall to-day. This vision was surely not far from what a specialist in nervous diseases would call an hallucination.

§ 11. I think few will deny that the conditions which religious activities imply, in their extreme forms, are conducive to the production of hallucination; a fact which will be fully illustrated as we proceed. The involuntary separation of a man from his fellows, which was common in nomadic life, the compulsory fasting which often accompanied this

separation, and the concentration of thought upon certain persistent ideas which would naturally follow, are all occurrences which we now recognise as liable to carry a naturally healthy mental life over into the realms of hallucination.

We are thus able, therefore, to account for the many persistent beliefs in the actual visual or aural guidance of the religious leaders who have arisen amongst the wandering tribes of the wilderness. As a matter of fact these leaders doubtless did in many cases hear hallucinatory voices, and did see hallucinatory visions, and they themselves, understanding these experiences to be the marks of guidance from without by a higher power, preached quite honestly of their own prophetic "calling."

Similar separations from the world, accompanied with fasting and persistent attention to some one idea, separations not the result of chance isolation but brought about by voluntary action, are characteristic marks of the lives of the religious hermits and ascetics who abounded in the days of old, and who are still found in large numbers in certain parts of the world, principally in the East, but in no small number even in the midst of our western civilisation; men who have proclaimed and still do proclaim, and I believe with perfect honesty, that leadership is guaranteed to them by voices and visions that have been vouchsafed to them and to them alone.

The close relation of these "visions" and "voices" of religious inspiration to morbid mental life has been clearly grasped by a thinker so far separated from our modern scientific thought as was Emerson.

In his essay "The Over-Soul" he teaches us that "A certain tendency to insanity has always attended the opening of the religious sense in men, as if they had been 'blasted with excess of light.' The trances of Socrates, the 'union' of Plotinus, the vision of Porphyry, the conversion of Paul,

the aurora of Behmen, the convulsions of George Fox and his Quakers, the illumination of Swedenborg are of this kind. What was, in the case of these remarkable persons a ravishment has, in innumerable instances in common life, been exhibited in less striking manner. Everywhere the history of religion betrays a tendency to enthusiasm. The rapture of the Moravian and Quietist: the opening of the internal sense of the Word, in the language of the New Jerusalem Church; the *revival* of the Calvinistic Churches; the *experiences* of the Methodists, are the varying forms of that shudder of awe and delight with which the individual soul always mingles with the universal soul."

It is surely not surprising that, when this illumination from within occurred in a semi-hallucinatory way, the person to whom the vision had been granted should attribute it to an influence from without. We can understand whence arose the notions of the muse who incites the poet, of the vision that is given to the sculptor, of the *demon* of a Socrates. Furthermore, we can understand how it happens that this thought of a voice coming to us from without has an abiding significance for us even to this day; for where the processes, which when carried to extremes produce hallucinations, are not carried to extremes, mental states similar to those accompanying hallucination would obtain; and these closely allied mental states would be closely related by the one who had once experienced hallucination to the more startling occurrence. It thus appears not at all obscure why it has become common custom to speak of our consciousness of the pressure of our impulses as though it were a voice from without speaking within us and guiding our lives. There is no more general and beautiful fiction than that which tells us of the "still small voice of conscience." It will be convenient to use this metaphor from time to time, and I am sure I shall not be misunderstood in so doing.

CHAPTER X

THE FUNCTION OF RELIGIOUS EXPRESSION

I

§ 1. IN the chapters that have preceded this the reader will remember that we found ourselves led to note that there are many influences in our complex social life which, if unrestrained, tend to produce an over-emphasis of variance from typical forms of action, and to subvert the order of instinct efficiency which has been formed in us, and which we judge must be of value to our race in its struggle for supremacy. This suggested that it would be of advantage to our race if there should develop within us a governing instinct functioning to prevent this over-emphasis and this subversion, and led us to look for some signs of the existence of such a governing instinct.

In the very beginning of this search the fact was forced upon us that some of the most characteristic activities connected with the expression of our religious feelings must tend to produce the very results that our governing instinct if existent would itself tend to produce. This led us to ask whether religious activities are to be classed as instinctive; and, finding evidence that they must probably be so classed, the hypothesis already stated was naturally suggested—viz. that the function of the activities expressive of the religious instinct is to emphasise within

us instinct in general and to subordinate variance; to strengthen the instincts of social influence and to subordinate those that are less broad in their influence although occasionally more powerfully developed; to establish a certain order of impulse efficiency which would tend to bring those instincts that are of individualistic import into subjection, under certain conditions, to those that function in relation to the persistence of the species; and to bring both of these classes of instincts, in general, into subjection to the instincts that have social import.

This hypothesis, which I present tentatively, must be judged by a study of the effects produced by the very varied expressions of religious feeling; a study which I could not attempt to make even in outline were it not that the many forms of religious expression naturally fall into a few groups which we may find space to consider briefly.

I shall attempt in the case of each group to show that the persistence of these special activities cannot be explained on the ground that they are pleasing to the individual, or that they are of unrecognised or of recognised individualistic advantage; nor on the ground that they tend to advantage in relation to the processes governing the reproduction of kind. On the other hand, I think it will appear that they do serve to emphasise the order of impulse efficiency already referred to, bringing into prominence the social impulses and tending thus to produce persistence of the higher social types.

If this view be sustained, then we are able to account for the persistence of these activities in our race, it being clearly advantageous to us to emphasise the social instincts which make possible the existence of these social types; for these social instincts could scarcely have arisen in us unless the actions they induce had been of advantage

indirectly at least in the maintenance of the life of the individuals and species in which they appear.

§ 2. I do not here attempt to define the nature of religion as we know it on its conscious side, although the essential mental characteristics connected with religious expressions will be from time to time referred to. I am concerned here not with questions of belief with which we usually associate religious expression, and I shall avoid discussing such questions as far as may be, for I wish here to study only the active expressions which are usually recognised as connected with our religious feelings.

If objection be made to the attempt to make such a separation, I think I may answer that it is altogether proper from the biological point of view to endeavour to imagine ourselves beings far removed from men and watching their activities, much as we ourselves consider the activities of the flying bird whose experience we can but dimly appreciate: were we such beings we should notice in man the exceptional activities which we call religious, and would strive to classify them and determine their biological significance.

I shall endeavour to take such a point of view in what follows, although from time to time I shall not hesitate to refer to the psychic experiences which we connect with religious functioning as they serve to corroborate the hypothesis I present.

§ 3. Before beginning our study in detail, I must speak of a few points which will apply to all the religious expressions to be examined.

The first point that I would mention is this: that although I am concerned to consider the basis of the persistence of religious expressions only, still I am compelled

from time to time to refer to their probable origins. I therefore ask the reader to note in general that even if the origins prove to be very different from those suggested, nevertheless the argument concerning the persistence of the habits is not affected, and it is with this argument that we have the most concern.

In passing I may also remark that the questions relating to the origin of religious expressions are rendered in all cases very obscure because these expressions have come down to us from a period so far back of the very beginnings of historical record; and especially because special parts of these expressions have been developed and modified artificially by the priestly classes, and this sometimes perhaps deliberately for their own benefit, but for the most part I think naturally and for no selfish reasons. Moreover in the course of this process of modification new notions of the original significance of the expressions have been attached to them, by those who began the attempt to explain the existence of these customs, long after the significance attached to them in earlier days, closer to the time of their origin, had been entirely forgotten.

This leads me to say one other word, and that concerning the relation of religion to beliefs to which a special book might well be devoted. Writers on the subjects we are treating have a way of assuming that beliefs have led to the formation of habits, when in reality they are much more likely to have been merely discovered to exist in connection with habits already well established.

Beliefs become known to us first in connection with the disturbance of our conceptions by doubts; but for the doubts, strictly speaking, they would never have existed, the trends of our thought would not have attracted attention: yet they have grown up with the established habits of action which are co-ordinate with them. New modifica-

tions of belief do indeed involve modifications of systems of action, but it is not at all true that when we have discovered the origin of a settled belief we have also discovered the *function* of the habitual action which is co-ordinate with the belief.

Mr. Herbert Spencer in the opening sentence of his *Ecclesiastical Institutions* says, "There can be no true conception of a structure without a true conception of its function. . . . Rightly to trace the evolution of Ecclesiastical Institutions, therefore, we must know whence came the ideas and sentiments implied by them." This may be taken to mean that in having discovered "whence came their ideas and sentiments" we have discovered their function. It is clear that we can make no such assumption, rather must we agree that in very few cases do the beliefs connected with elaborate instinctive reactions point at all to the function of the expressive instinct actions. The beliefs connected with benevolence, for instance, clearly have no relation to that closer welding of the social bond which the benevolent instincts foster. We must look beyond the beliefs to the trend of the instinct actions which are co-ordinate with these beliefs if we are to discover the biological function of these instinct actions.

It is because we still cling to the notion that the mind acts upon the body that we look upon beliefs as determining actions; rather must we say that beliefs are the psychic side of *part* of that which determines action: they are relatively stable trends of thought and conception, and as such are very influential in the movement of thought which corresponds with the processes that lead to action, but they are not the cause of the activities. Furthermore, inasmuch as in case of action they are the psychic representatives of only part of that which determines action, the elements in them which correspond with the important

trends of activity are very liable to be entirely subordinated in consciousness to those elements which are superficial, and subject to change without affecting the general body of the belief. The essential elements of the belief often scarcely arise in clear consciousness at all, although they correspond with the general trend of action that is serviceable to the race.

The reader will now see why it is that I shall pass lightly over many points in relation to the beliefs accompanying religious expression, which might seem to him to require treatment did I not make this explanation.

Notwithstanding all that has been said, there is still likely to be a confirmed impression in the minds of some readers that religious habits are forced upon the race altogether by tradition and custom; that we undertake them purely as the result of our imitative tendencies.

I have already stated why I believe this notion to be without foundation. Although it is doubtless true that many of our religious habits are thus acquired by one generation from the preceding generation, still it is to be noted that where certain fixed habits appear in wide masses of people, and where they persist for long historic periods, then we are warranted in the assumption that the tendency to follow the actions of the preceding generation is due to an inborn trend and organised capacity, which we have agreed under our usage indicates the existence of instinct; especially is this true if the actions "imitated" appear to the individual to be disadvantageous to him or to his race, or are distasteful to him in any degree, directly or indirectly. In the case of the actions which we are about to study, not only do we find this persistence in wide groups of men, but we find a common source acknowledged as the basis of the most varied types of actions; and we

find also, as I hope to show, a common trend of all to one special biological benefit, notwithstanding that they are unattractive and that marked disadvantage appears at the first glance to be connected with them all.

And at this point let me say that as I am concerned here to attempt an explanation of the function in man's development of the expression of the religious instinct, I am not concerned to present rationalistic explanations of beliefs which accompany these expressions.

I indeed appreciate thoroughly that there is great weakness in many such explanations that are current, a weakness determined principally by the fact that they are dependent upon unwarranted hypotheses involving the assumption of the existence of a higher type of intellectual power in the barbarous progenitors of our race than we have any warrant for believing they could have possessed. So far as we are able to judge from the record of the past and from the studies of those remnants of uncivilised races that still exist, the beliefs of man in an early stage of intellectual development are, like those of the child, obtained to a great extent fortuitously, if we may so speak, or through imitation of those around him, or through haphazard associations; and they are similarly shifting and unstable.

The evidence is often very weak which leads students to the assumption that the complex beliefs held by civilised people of to-day have been resultant from the building up of elaborate intellectual structures in the child-like minds of their savage ancestors by intricate processes of reasoning; structures which are indeed often most unstable, founded upon early misconceptions due to imperfect observation of phenomena or to inaccuracy of knowledge. Such unwarranted assumptions I shall hope to avoid in what follows; and I shall refer to explanations of the rise of belief only so far as they seem to me to throw light upon

the connection of belief with certain persistent habits of action which are of importance in connection with religious expression.

II

§ 4. Let us now turn for corroboration of our hypothesis to an examination of religious expression as it is known to us in the lives of men around us, and of those of whom history leaves to us a satisfactory record.

At the start let us note that if the religious instinct has persisted because it has the function in the regulation of life which I suggest, then we should expect to find in the development of its expression, first of all, the growth of habits which would aid in the hearing of the "voice." These we shall study in this division of this chapter.

Secondly (Division III. below), we should expect to find the growth of habits that would lead to the enforcement of the admonitions of the "voice" by those who have recognised its commands, upon those who do not hear them well: and we should expect this to lead to an effective impulse towards the working out of these relatively obscure social ends; to the production of an enthusiasm in following the commands of the "voice" among those who themselves hear distinctly, or who are taught to hear more indirectly. Let us consider these points in their order.

§ 5. In this division of this chapter I shall study certain religious expressions which seem to me to have their value for the race in the fact that they tend to aid in the hearing of the voice of conscience, in listening for and attending to the higher impulses given to us; and I think it will appear that a large proportion of the most characteristic religious expressions have this special function.

In what I have already written I have given so much prominence to the religious habits connected with voluntary seclusion from the stimuli of our complex life, that it is natural to begin our study with an examination of this form of religious expression.

On the basis of the considerations already brought forward in previous chapters, it is not at all difficult for us to understand how habits of voluntary seclusion may have originated now and again among men in whom the higher capacities were dawning. The experience of men must have led to the early observation that what we call hallucinatory voices or visions, but which they took to be commands from higher powers, occurred at times during involuntary seclusion: the voice had spoken, the vision had appeared, again and again to those who were alone in the desert, far removed from the distractions of normal life. And to the man of undeveloped type these voices and visions must have been very impressive. In times of great danger or perplexity the guidance of these higher powers as they were conceived might be wished for; and this might lead some individual to seclude himself voluntarily, entertaining the hope, which would be discovered in some cases to be well founded, that this mysterious guidance might thus be obtained.

But here we must note an important point; namely, that while we may thus account for the appearance of this habit of seclusion in individuals, on the other hand, it is not easy on any such basis to account for the long *persistence* of this habit in the race, persistence which is implied in the fact that the habitual actions have at length become instinctive. For the occasions when such guidance would be wished for must surely have been relatively very infrequent; and it is difficult to understand how such occasions could occur with sufficient frequency to develop the habits, or to cause such repetition of them as must

have been necessary before they could have become instinctive.

It would be possible to explain the acquisition of such habits, indeed, if there having been some exceptional recurrence of fear or perplexity to foster them, the habits themselves, or their accompaniments, had been intrinsically attractive; but such they very clearly could not have been. For evidently the painfulness, the danger, the hardship, connected with the life of the man who thus secluded himself from his fellows must have been apparent to all.

What is more, the very guidance in hallucinatory form which he might occasionally gain in seclusion must naturally have been conjoined in his mind with a very decided repulsion; for men as we know them surely display no special wish to be startled by hallucinations, rather are they wont to dread ghostly forms and voices; and we have every reason to believe that our savage ancestors were still more averse to these mysterious sights and sounds than the average man is to-day. This being true, evidently any habits which tended to produce these hallucinations would naturally be avoided, if in any case the connection between habit and result were recognised. This fear of hallucinations would therefore act in the beginning to prevent the acquisition by intelligent process of such habits of seclusion.

Nor can we suggest any imagined benefit that could offset this repugnance. There is, to be sure, satisfaction to a certain type of mind in the notion of being led and guided by another power upon whom responsibility for one's personal acts may be shifted. Moreover, there must always be a fascination to a man in listening to secret messages given to himself alone, and such messages these hallucinations appeared to bring; where therefore these voices or visions gained by seclusion were of less than hallucinatory, or of a very mild hallucinatory form they might thus be

sought for, for their own sake. But it is difficult to believe that men of such unenergetic type of mind as those must have been who could have been led by such motives, could have been sturdy enough to beget a persistent race in which the habits which might thus arise could be established in the shape of an instinct.

There is much evidence again in the world around us that many men find satisfaction in the relief from strain that goes with the mendicancy which usually accompanies the developed forms of hermit life. But it must be remembered that the advantages thus gained are due to the notion of the sanctity of the hermit; and that as this notion of sanctity could not have become current until the hermit habit was widespread among men, the fact just mentioned cannot be used to explain the establishment of the habit itself.

It might be possible to claim that the primitive man to whom in his seclusion the hallucinatory message was given would gain power and influence, and to hold that on that account his actions would be imitated from purely individualistic motives by those who envied him this power or influence. In making such an argument, however, we would have to overlook the fact that the power and influence would not accrue in any degree until after the firm establishment of the customs under consideration; and we would also fail to consider what an inconsiderable proportion of the "inspirations" that have come thus forcibly to men have brought to them power or honour, comfort or benefit in life. Think for a moment of the natural revolt that the savage man must have felt, if his own personal welfare in this world were alone considered, if once he realised the hardship, with little compensation, in the life of the average hermit who has felt and proclaimed himself to be an inspired prophet. Moreover, it must be re-

membered that the man who, under the hypothesis we are considering, is supposed to choose this life for the emoluments of one kind or another connected with it, must be supposed also to be fairly intelligent, and intelligent enough surely to note that relatively few of those who seek to gain the hallucinatory guidance by this means ever really gain it at all; and this fact is so evident that it would certainly act as a distinct bar to the intelligent and voluntary acquisition of painful habits though they were seen in some few cases to lead to the gain of this guidance even were it desired.

On the whole, then, I think we must grant that it is impossible to explain the acquisition and persistence of the habits of seclusion which we are considering, under the hypothesis that they are due to intelligent recognition of personal benefits to be obtained from such seclusion. I speak below of the enforcement of such a life upon others by the teaching that it will bring indirect benefit: this enforcement, however, does not concern us at this moment; we are speaking here only of the possible explanation of the primary voluntary acquisition of these habits without pressure from without. The enforcement upon others implies the establishment of the habit among those of influence or power.

But if we are compelled to grant that the habit of seclusion is on the whole a repulsive one, and that it would therefore be naturally avoided by the man seeking self-satisfaction, we are also compelled to grant that if it did appear in the race it would in its direct results be disadvantageous to the individual, and furthermore would be opposed to the persistence of the species.

Persistent or even temporary seclusion must, on the whole, be dangerous to the individual, who thus loses the

advantages that go with co-operation and mutual help in moments of emergency: and in the early days of man's development, when these habits were becoming ingrained in the race, the dangers connected with attack by enemies and beasts of prey would certainly be greatly increased if the man were unable to avail himself of protection by others of his own kind.

I need not say a word to convince any one that the same persistent seclusion from the world, if honestly carried out, must necessarily prevent reproductive functioning; and this, in itself, would tend to eliminate the portion of the race which had acquired these habits of seclusion. Nor can it be held that temporary seclusion could act to increase the number, or the strength, or the perfection of offspring.

It is apparent, then, that in connection with the actions leading to seclusion, we must look for some other significance than the advantage of the individual, or the persistence of the race through reproduction; for without such other significance, these habits, even if once acquired, would speedily have been eliminated by natural processes through the failure in the struggle for existence of those in whom they became predominant.

But as a matter of fact we know that the habits of seclusion which we have under discussion have not been eliminated, and I hope I shall not weary my reader by repetitious illustration, if I beg him to consider how firmly fixed in the race they have become: at the same time I shall ask him to note how constantly it appears that the far-reaching social forces within us are emphasised by these habits.

Moses flying from the Court of Egypt to the land of Midian "led his flock to the back of the wilderness," and it was there, as says the legend, that he saw the bush which burned but which was not consumed; there he heard

the voice of his God commanding him to actions which had clearly no individualistic significance at all, but which as clearly did have social import.

Buddha, who had himself been impressed by the life of an ascetic subject (for already the habits we are considering were deep-seated in the race) gives up a life of power and luxury, departs into the wilderness a homeless wanderer, and there, if legend be true, sees visions of Māra the tempter, and of the angels of darkness and light. Whether or no they seemed to give him direct guidance, it is clear that the outcome of his experience led to the promulgation of a doctrine which as Max Müller says "appeals only to inner light"; which taught the importance of the suppression of personal desires and passion, and the emphasis of universal charity; teachings which are surely not individualistic, nor relative to the persistence of the human species, but which as surely have significance in relation to the social fabric.

John the Baptist lived in the desert, and in the desert taught as "a voice crying in the wilderness" in preparation for his Master the Christ.

Christ Himself, who apart from all claims as to His divinity must be looked upon as the greatest of all ethical teachers, according to the Gospel story, passed forty days and forty nights in the wilderness, and there saw visions of devils and angels; and the "inspiration" He thus gained led to the teaching of a new Gospel which, socially speaking, has its great significance in the suppression of the individualistic demands of our nature and the emphasis of the ethical impulses, especially of those that relate to co-operative sympathy in its widest bearings.

It is not worth while to mention other examples of this type. A volume might be filled with the names of saints who have followed in the footsteps of these and other ethical

masters, and of hermits who have found messages of inspiration in their lives of separation from the world. I need but to mention the monastic orders in the Christian Church, and in other religious bodies, as examples of the widespread tendency to separation from active life as an expression of religious thought; a separation which has varied in rigidity amongst different races and sects, but which has always retained the same general characteristics.

But let me ask my reader to note again how few of those who have thus separated themselves from the world have really had distinct messages given to them; how vast a number have failed to gain these visions. Can it be doubted that the habits referred to would long since have been lost to the race had the occurrence of hallucinations, voluntarily attained, been the effective instrument in the establishment of the instinctive actions we are discussing?

We must remember, moreover, that hallucination does not occur often in cases of voluntary seclusion unless the seclusion is prolonged, and that the cases in which separation from the active world has been realised for practically the whole of life, or for long periods of time, are relatively few in number in the race of man. Therefore were our argument based only on those cases where hallucination has occurred it would certainly lack cogency.

But we find that amongst large bodies of religious men habits of temporary seclusion have been established; habits which do not often result in the production of guiding hallucinations, and yet which differ from prolonged seclusion in their repulsiveness and disadvantage only in degree. Such habits may often have been, and not improbably were, derived from spasmodic attempts to imitate the actions of recognised prophets, and in certain cases as we know have

been forced upon the people by religious teaching; still it seems to me impossible, highly improbable at all events my reader will agree, that they would have become so thoroughly ingrained in the race had there not been some advantage connected with them which was unrecognised by those who acquired or encouraged them.

At this juncture I would ask the reader to take note of one special point: although such partial separation from the world as we find amongst a large proportion of the members of the monastic orders, and such more rigid but temporary seclusion as we find more generally habitual, would not in any large proportion of cases be likely to result in vivid, distinct, hallucinatory leadings; nevertheless it would carry with it a state of mind closely allied to that of the man who did reach the state of hallucination; it would, and still does, bring to men a more or less clear impression of an impulsion, of a leading from without. Men under such conditions seem to have clear "callings" as we say, which appear to be commands revealed to them; and these, while in no sense hallucinatory, but far more closely allied to our sane, normal, mental life, are on that very account much more likely to teach lessons that will be intelligible to the average man after the "voice" has ceased to call.

Finally, when we come to the consideration of the perfectly normal religious habits of perfectly well-balanced people, of men and women of the very highest and noblest type, we find them withdrawing themselves upon occasion from the distracting stimuli of the world and giving themselves up to higher reflection and thoughtful self-examination.

In cases where men removed from the normal environment receive thus what they feel to be "inspirations," these "messages from without" are evidently not likely to be related to individualistic actions, which in seclusion are not

often called for ; but are much more likely to be related to those impulses of a social nature which cannot become forcible so long as immediate response to stimuli from the environment is demanded.

If this be granted, and if we agree, as I think we must, that Nature finds it important to emphasise these non-individualistic impulses, then it seems to me not at all difficult to comprehend the emphasis in the race of the habits we are considering ; most natural to find, as we do, that voluntary seclusion from the world has been emphasised in the habits of religious teachers from the earliest days of history.

But perhaps some reader may suggest that I am here confusing effect with cause. If it be true, on the one hand, I hear him say, that voluntary or involuntary separation from the distracting stimuli of the world calls to our attention our deeper-seated impulses, forces upon us the fact that our actions under individualistic stimulation have been opposed to the wider instincts within us ; if, in other words, this separation enables us to hear the voice of conscience upbraiding us and bringing to us regret and remorse : still it is equally true, on the other hand, that the demands of conscience heard in the midst of active life often lead men to voluntary flight from that life of temptation that has led to the individualistic oppositions.

This we must acknowledge. The sinner who is overcome with remorse flies to the desert, or in our day more often enters the monastery. Or often this seclusion from the world is determined by an attempt to escape from the disappointments, the weariness, and other pains of life. Few of us there are, indeed, who do not at times cry with the poet :—

“ Oh ! for the wings of a dove,
Far away would I rove ;
In the wilderness build me a nest,
And remain there for ever at rest.”

This wished-for rest and loss of pain does not come with separation from the world, however, unless the hermit gains in his seclusion the submission of his individualism in the willingness to subordinate his will that it may conform with the forces which guide the Universe in which he lives.

But certainly there is no reason why this submission, this hearing of the “voice,” should itself lead to separation from the world ; and we can only account for the separation, even under such circumstances, as due to an instinctive tendency, and this tendency it seems to me must have developed because in such separation the voice of conscience has been most clearly heard. Thus by this very flight from pain and temptation is the man who has just caught the sound of this voice led to place himself in the position in which, as we have seen, he is best able to strengthen within himself his impulses towards the good. It seems to me highly probable that it is because of this valuable result that the habit of seclusion under such circumstances has become established.

On the whole, then, I think we may well claim that as these efforts towards separation from the activities of life have no advantageous influence upon the persistence of the individual or the species, they would not have become instinctive, or let us say merely persistently habitual, unless they had had in some way a racial value of special type : a value which I think we may hold to consist in the emphasis of the deeper impulses which is thus brought about, so that these impulses come to guide life in a way

that would have been impossible without this artificial emphasis.

Were this seclusion absolute in the majority of those in whom the habit was established, it could, of course, not conduce to social advantage. But as a matter of fact habits of temporary seclusion only are natural. The permanent hermit life is a distinctly morbid development. With the hearing of the voice the mass of those who retire from the world are led to return to their fellow-men, and with new ideals of action, new hopes, new courage to enable them to preach their ethical doctrines.

§ 6. Fasting as an expression of religious feeling naturally comes before us for consideration at this point, because it has been, and is still, so closely connected with the habits of seclusion we have just been studying. Indeed, fasting was almost necessarily connected with involuntary separation from the world in the desert: and quite naturally accompanied that seclusion which was undertaken voluntarily.

It does not seem improbable indeed that we may thus account for the origin of habits of fasting in certain cases; and we are able to conceive also that these habits, although arising in connection with seclusion, may occasionally have come to be followed apart from seclusion. But given the origin it is very difficult to understand the persistence of these habits under any theory which implies that fasting was afterwards undertaken to satisfy individual longings; and yet such persistence in the past through many ages is implied in the very existence of an instinct the expression of which tends to develop naturally in a large part of the race, as we shall presently see is the case with fasting.

Surely the painfulness directly or indirectly connected with starvation could not in itself have been attractive.

Nor are the hallucinations which arise so often as the

result of lack of food attractive in themselves, as we have already seen in an earlier section; nor do they appear to ordinary men to be connected to any great extent with individualistic advantage; consequently, we are unable to agree with Tyler¹ that habits of fasting could have had their origin in the desire of the primitive man to produce voluntarily the exceptional nervous states, favourable to the seeing of those visions that are supposed to give to the seer access to the realities of the spiritual world.

But even if we could agree that fasting had this origin, it would surely not seem possible thus to account for its *persistence* in the race for a sufficient time to have permitted it to become established as an organic tendency.

Nor can we account for the persistence of the fasting habit by reference to Mr. Spencer's imaginative hypothesis that fasting had its origin in the starving connected with the custom of providing refreshment for the dead: even if this hypothesis be well grounded it can at most account for the genesis, and not for the continuance of the habit.

For very clearly the habit is in its direct results not only of no advantage, but of very great disadvantage to the individual, and hence indirectly to the race of which he is a member; for the ascetic who indulges himself thus is liable to become weakened to such a degree that he may find himself incapable of self-protection against the adverse forces in his environment; a fact, indeed, which the most stupid of savages would be quick to recognise.

But notwithstanding the fact that the custom of fasting altogether fails in attraction, and although it is easily seen to be opposed to individual welfare, still note how surprisingly persistent the habit is. Not only do we hear of the fasting of those great leaders who, in the past, have seen

¹ *Primitive Culture*, i. 277, 402; ii. 372.

visions and heard voices guiding them to actions they would not have conceived of under normal conditions; but voluntary fasting is taught as a duty by many religious bodies in our day in all parts of the world, usually indeed in connection with seclusion more or less rigid. Nor is the habit limited to people of this type, for we find fasting undertaken voluntarily by many pious people who do not at all believe in the hermit-like life of separation from one's kind.

Fasting in excess is a well-recognised means of producing hallucinations, and if undertaken in connection with religious service must tend, as we have seen in the last chapter, to produce voices and visions relating to our ethical life which we are considering: but quite apart from such excesses, fasting in moderation would tend to produce states of mind closely allied to those produced during hallucination; and furthermore, reducing as it does the vitality sufficiently to overcome any natural demand for spontaneous activities, it must clearly aid one very materially to gain that racial inspiration which most easily arises when reactions of individualistic significance are not called for.

It seems to me, then, that in this fact we have an adequate explanation of the persistence in the race of this custom, not only in its extreme forms but also in moderate degree, and at more or less widely separated intervals of time. Disadvantageous as the fasting habit might be from a purely individualistic point of view, it thus appears to be of advantage to the race in that it tends to conserve and foster that highly serviceable social grouping of which individual men are elements; and this suffices to account for its continued appearance amongst the individual elements of those social groups which are now in process of evolution.

§ 7. In connection with the consideration of the habit

of fasting our thought is naturally turned to a class of customs expressive of religious fervour which vary greatly in form, and which in any one form are noted amongst only a relatively small number of the race; all of which, however, have the one characteristic that they involve the voluntary assumption of bodily pain.

The tortures of various kinds which have been undertaken for their own sake, and endured willingly and with joy by the saints of the past, need not be enumerated, and I do not think it worth while to treat of any of them in detail.

What they have been in the past, that they are substantially to-day amongst men of the less civilised types. In the midst of the Indian civilisation, so complete in many respects, we find in our own time the Fakir who afflicts himself with self-tortures of various and revolting kinds, much as we know the ascetics did amongst the early Christians who failed to throw off the habits which had been prevalent during ages in the past. The sufferings of the penance have not yet disappeared from the Christian Churches, although nowadays they are much mitigated in degree. The barbarian living at the present day submits himself to the weakening effects of the sweating-bath, to excessively exhausting muscular strain, to mutilation, to cuttings, to flagellation, all in connection with, and as part of, religious service.

It would be almost hopeless to attempt to account for these habits so complex in form, limited in each form to such small numbers, were it not that they are so closely related to the much more uniform habits of religious expression which we have already studied. As we know them in historic times, among the people whom we think of as civilised, they have become closely connected with the widespread notion that the hope of salvation of the soul lies

in the assumption of an attitude of contempt for the mere physical man. But it is apparent that this conception implies a high degree of intellectual development in the people adopting it, and its adoption must therefore have been late in the history of our race ; hence it is most probable that this notion was suggested as a rational excuse for the continuance of religious habits already well established, but which seemed to require some explanation in accord with reasonable conceptions.

If we examine the habits of savages, amongst whom these customs are practised to-day, we are able to gain an inkling of their mode of origin, for they are there very generally found in connection with the means adopted to bring on the trance states. It seems not improbable hence that we have here really a case where habits, originally connected with the occasional attempt to gain the guidance from without which hallucination seemed to give, have been forced upon a tribe by their religious leaders. We shall return to this subject in a later section.

This supposition seems the more probable because as such demand for hallucinatory guidance would be only occasional, so correspondingly we find these habits much less general than the habits of seclusion and fasting already alluded to. That these practices of self-torture when carried to extremes do tend to bring hallucinatory voices and visions is well known ; and especially is this true when they are aided by the use of drugs, opium, hashish, and strong tobacco, as they are by the customs of many savage tribes.

Here again we are dealing with habits which are in themselves intrinsically unattractive to the individual, and which, therefore, would not have persisted in the race on account of their individualistic desirability. Moreover, they

are habits which are evidently disadvantageous to individuals, and which would be seen to be so by any set of men of very moderate intelligence. Furthermore it is evident that in themselves they might not infrequently bring serious disadvantage to the tribal group.

It seems clear, therefore, that there must have attached to these general practices in the past some important advantage to the race which has overbalanced the ever-present individualistic, and the occasional racial, disadvantage connected with them. But in the light of our previous studies of the habits of seclusion and fasting, so closely connected with these more variable customs, it is not difficult to conceive that this advantage may be found in the aid obtained in connection with these practices in the strengthening of the social instincts.

As we have already seen, there is every reason to believe that in the states of hallucination which these practices often entailed the deeper-lying impulses tend to come to the mind: at all events the tendency to spontaneous individualistic action would be largely reduced by the very weakening processes which induced the hallucinations; and for those who gained these hallucinations the important fact, so far as their persistence is concerned, may not improbably have been the emphasis within the hearers, or the seers, of their tendency to listen for this guidance within themselves, which they thought to be commands to them from without.

But again we must not forget that the hallucinatory images occur to relatively few even of those who aim to gain them by undergoing these weakening processes, or who are forced to undertake them with that end in view; and yet the reader will perceive that if my hypothesis be correct the one who strives but fails will be benefited as well as he who finds the more impressive guidance: for he too will gain that suspension of the individualistic tendencies which

results from the processes of weakening, and therefore will indirectly gain the emphasis of the slower acting, broader, impulses of social import.

So much for the voluntary submission to these tortures which is undertaken by relatively few of the race: of the general submission to such tortures under compulsion, at certain times, we speak later under Division III.

§ 8. I shall now ask my reader to turn from the study of modes of religious expression which in large measure, when carried to excess, lead to the production of hallucinations, to the consideration of a special habit which of all religious habits is the most widely prevailing and the most persistent, and yet which nevertheless in itself seldom if ever leads to the production of hallucinatory states. I refer to the habits of Prayer.

In studying the habits of seclusion, of fasting, and of self-torture we have had to deal with the theory that they originated in the race because of the impressive hallucinations which they not infrequently occasion, and that they have persisted because of indirect results dependent upon the attainment of closely allied states when the hallucinations themselves were not actually gained: but in relation to the habit of prayer such a theory can scarcely be upheld.

On the other hand, there are many indications that prayer in its inception must have arisen in connection with efforts to obtain mercy from human conquerors in the bloody contests which must have been common amongst the early ancestors of our race. The expressive attitudes of prayer themselves tell this story. He who prays is found prostrate on the ground; or kneeling, with hands clasped, with head bowed, with eyes closed: and all these attitudes are suggestive of powerlessness to attack, of absence of aggressive

tendencies, and of willingness to become the slave of a conqueror and to listen to and obey his command.

Habits thus acquired to meet the exigencies of savage life might be called into action during those greater emergencies which from time to time come upon man apart from human agency, because of the notion that the perils in which the savage found himself placed were the expression of the hostility of higher beings, of a God who was an avenging power, and whom the savage believed he must have offended.

But even if we suppose these habits of action to have thus originated they very clearly could not have persisted in the race because of the advantage that was thus supposed to attend them. They certainly could not have had the value to the individual in relation to his God that their prototypes originally had in relation to the conquering warrior: we recognise full well that the anthropomorphic conception of an avenging Deity fails under rigid examination.

But beyond the fact that these habits of action had not the particular individualistic advantage which may not unnaturally have been attributed to them by uncivilised men, they clearly must have been in themselves far from beneficial to the individual exhibiting them; for there being no all-powerful mysterious enemy ready to attack man, actions which in moments of danger, or perplexity, blinded the savage to real dangers, and which induced him to assume attitudes in which alertness was altogether precluded, might often lead to his great individual disadvantage. And evidently they might thus frequently also bring indirect disadvantage to the race of which he formed a part. Even where direct danger were not incurred, it surely could be of no direct service to an individual to assume attitudes which preclude reaction to the forces in his environment,

while still remaining in a state of mental stress which would preclude his gaining any of the recuperative force which comes with the inactivity of rest.

It seems to me clear, then, that the tribes in which these habits became markedly developed would have suffered in the contest for survival unless connected with these habits there had been some indirect, unrecognised, advantage of sufficient force to overbalance the disadvantages above spoken of; and if it appear that these habits have persisted, then we are surely warranted in assuming that they have had some special racial values quite different from those originally attributed to them.

It is unnecessary for me to say even one word to show that the habit of prayer is an exceedingly persistent one in the human race, having been characteristic of religious expression from the very earliest times of which we have record, and being in our own time one of the most widespread of all habits of action with which we are acquainted.

When we ask ourselves what this indirect racial advantage could have been that has led to the persistence of habits of prayer, our attention is again directed to the fact that all the bodily attitudes connected with prayer amongst devotees in the past, and amongst religious peoples of our own day, imply restraint and the listening for command, the calling for help and the awaiting for answer and direction: and we perceive that the mental attitude which these expressions involves is, as we have seen, the very one that would tend to subordinate the individual variant tendencies to the racial tendencies; that would lead to the suppression of individualistic reaction, and thus give opportunity for the slower-acting racial impulses of broader scope to make themselves felt.

Just notice once more in this connection some of these

bodily attitudes. Prostration was once more common than it is to-day: amongst races of the higher types it has given place to kneeling with bowed head and closed eyes; but the essential feature that has been retained through all changes of form is the assumption of positions in which bodily activity is impossible. Silence, seclusion in one's "closet"; fixation of attention upon some special object which has no tendency to produce reaction, as upon the rising sun, or upon smoking clouds of incense smoke; and even the ideal fixation of the mind upon God or upon some supposedly holy city or mountain, a habit that appears in the religious thought of exiles and of migratory races. Evidently all these habits tend to repress individualistic reaction and therefore tend to emphasise suggestions from man's deeper nature.

Now although these actions do not ordinarily lead to the production of hallucinations, they are clearly likely to lead to the emphasis of the promptings from within of especial forcefulness, to the hearing of the "voice" of conscience; and these promptings, these "voices," are, as I have remarked before, all the more likely to produce effective result in the higher type of men than the terror-giving hallucinations, for the very reason that they are saner, less morbid, and that they are recognised to be so.

I think, then, that it may be held to be in the highest degree probable that the advantage connected with the hearing of the "voice" of conscience with the accompanying emphasis of racial impulses within us, must have led to the persistence of habits of prayer, whatever may have been the origin of these habits.

But here again some reader may accuse me of mistaking cause for effect. It may be true, I hear him say, that prayer has value in that it calls to our attention the de-

mands of our deeper-seated impulses, that it enables us to hear clearly the voice of conscience ; but, on the other hand, it is equally true that the demands of conscience felt by us in the midst of active life, and bringing to us a sense of sin, themselves lead us to pray.

This fact must, of course be acknowledged, and yet the habit itself, it seems to me, must first have arisen as the expression of submission to an avenging God, who was thought of as omniscient, and therefore well acquainted with the sinful act. I cannot see how, without some such existing notion and some such previous experience, man could have been led to undertake the activities involved in prayer as a result of the call of conscience within him.

But the real difficulty in accepting any such explanation as I assume my opponent to make, lies in the fact that no theory that makes the consciousness of sin the basis of prayer can give us any account of the racial values inherent in these habits of action ; which values, however, must have existed if the habits were to persist, the habits being in themselves to a great extent of disadvantage directly to the individual and hence indirectly to his race. We have an explanation of them at once, however, if we suppose their value to lie in the emphasis of the slower-acting impulses brought about in connection with these actions, so that these impulses come to guide our lives as they could not otherwise have done.

It is to be acknowledged indeed that prayer is effective for another reason, in that it gives us courage to reform our lives : in that it shows us not only that we have sinned, or in other words that our individualistic actions have been opposed to our more permanent impulses, but also at the same time in that it shows us that there are forces within us which will help us to restrain these individualistic actions, forces which may enable us to resist temptation. The restraint, the suppression of our own wills, carries with

it the thought of a higher, an omnipotent Will, that may guide our lives; and this gives us courage to strive to do what appears to us to be the right, and adds comfort to our lives in the knowledge that we have for the time at least renewed our allegiance to the forces that work for good.

But here again we must agree that this courage to act in directions which relate only most indirectly to individual welfare, could in itself have had little to do with individual advantage and therefore cannot be held to account for the persistence of the prayer habit; this habit must have had some other and deeper biological significance, such as I have suggested.

I cannot close this brief and very inadequate study of the religious habit of prayer without asking my reader to note that the value of prayer is to the individual, and consists in the emphasis it occasions of the best that is in the individual. A large part of the polemic against the efficacy of prayer, and much of the factitious defence of its value, would have disappeared from our literature if this point had but been kept in mind.

Beyond the value in connection with the physical expression of the instinct in the enforcement given to the social impulses of which I have said so much, there is a great and distinct value in the prayer itself; a value, however, that is not objective but altogether subjective; altogether within and for the man who prays.

The crying out for help to aid in the exercise of our powers in some special direction is a means of accentuating these powers, is a mark of capacity within us, is indicative of a growing courage to make effort to the attainment of the desired end. "God helps them that help themselves."

The asking for help for others whom we can influence

also acts to emphasise a determination within us to use our influence upon them.

Thus is prayer effective, and this efficacy is overlooked by those extremists who would cast prayer aside as a valueless relic of ancient superstition.

On the other hand, prayers that express desires to change the order of the Universe must in their very nature be inefficient, and those who thus pray mistake altogether the function of prayer; they transfer a value which attaches only to the individual's action upon his own character, to a supposititious action by him upon the forces in his environment. Were this but remembered, much of the weakness would be eliminated from the argument of the apologists for this religious habit so widespread in our race.

Prayer must surely be held to be valuable, not only for the untutored man, with his superstitions, his misconceptions, his errors, but also for the man of the highest intellectual attainments, who, it seems to me, may often in prayer gain insight concerning the forces within him that will come to him through no other agency. For it must be remembered that, because of lack of psychological bent, relatively few of the most intellectual people realise, or can even understand, that the efficacy of prayer lies in the fact that it aids us in learning to subordinate our personal wishes to the Power that guides the Universe. For those who cannot clearly grasp this thought the loss of the habit of prayer is likely to result in loss to a great degree of this capacity for subordination.

But even if the man does grasp the thought that the value of prayer is subjective, it must not be forgotten that the mental habits of a race cannot be captiously overthrown; the emphasis of impulses which has become bound up with certain habits of action that are natural to our physical man must best be renewed by allowing these

habits to have full sway. We can no more expect to govern our lives as well without as with prayer, thus departing from the habits of our race, than we can expect to nourish our bodies completely by means of injections into the blood without action of the digestive system through which the nourishment is normally assimilated.

§ 9. Sacrifice is a religious custom which I do not need to tell my reader has been fixed in the race from the earliest days of which history and archæology tell us. The human sacrifice, the sacrifice of bull, of ram, of lamb, of precious goods, involving destruction, or at least loss to the owner, in all cases of what is valuable and useful; these and closely allied sacrificial customs have indeed tended gradually to disappear with the advance of civilisation. But the sacrificial custom remains with us in its essentials, expressed in the actions connected with the belief that the giving up of valued goods, and the voluntary relinquishment of that in life which we value most highly, are acts of worship that please our God and that are efficacious to our salvation.

Hypotheses in relation to the origin of racial habits are always interesting, but in the case of sacrifice the facts are so very much obscured by the rise of superstitions which have modified the customs in many details that it seems all but impossible to determine definitely the earliest forms of the customs we are considering. Nevertheless I may be allowed to remind the reader of the theory emphasised by Mr. Spencer, viz. that the original establishment of the habits of sacrifice was due to the custom of laying upon the funeral pyre gifts of articles of food or adornment which during life had pleased the man whose body was to be consumed; these habits being fostered through belief that the spirit would need these worldly goods in its new abode, or else through fear lest the spirit of the dead might do

injury to the living man if it were not placated by such gifts.

It seems to me very much more probable that the custom may have originated from a pure attempt to gain individualistic advantage; from a desire to express willingness to give up one's best possessions to a human conqueror in consideration of the relief from fear of death which might follow this sign of submission: for these habits, we perceive, might easily have been extended to apply where God was conceived of as an invisible and irate power, or even as a friendly power with whom it was wise and pleasant to keep on friendly terms, and thus our early ancestors might have gained the sacrifice habits with which we are so well acquainted through historic record.

Possibly both of these conceptions, and perhaps others which we have not divined, may have worked together to originate and foster these habits. But, fascinating as these or kindred hypotheses may be, they really do not concern us here; for we are dealing not with questions of origin; what we wish to discover is how it has come about that the habits in question have *persisted* in the race after they have appeared.

For even if we assume that these habits had their origin in attempts by men to gain individualistic advantage by the maintenance of amicable relations with powerful friends, or through attempts to appease the wrath of enemies and to ward off danger that appeared in connection with the action of their neighbours, nevertheless it is very clear that when these actions were undertaken in order to gain the friendship, not of a powerful fellow-man, but of an invisible spirit, or to satisfy the wrath, not of a conquering foe, but of a supposedly irate Deity, as we know them to have been, they could not have had the same direct individualistic, or less direct racial, advantage: those who performed the

sacrificial rite could not have gained for themselves or for their children the benefits they imagined they were thus to obtain.

It is probable, then, that these habits would not have tended to be impressed upon the race by Nature unless they had been in themselves essentially attractive, or unless they brought to those who practised them other advantages than any that were realised.

But as to the first point, we do not have to say a word to show that sacrifice must have been essentially unattractive to the primitive man, involving as it did much loss of precious things gathered together with much labour which itself was abhorrent to his soul. Moreover, sacrifice evidently involved reduction of the individual's resources and capacities, and danger therefore not only to the individual, but to his tribe, from those enemies who had not thus reduced their resources.

We must look, then, for other advantages than any that appear on the surface in order to account for the persistence of these customs. After the argument that has preceded this, I scarcely need to tell my reader that my thesis in reference to these, as in reference to the other religious customs already discussed, is that they have been enforced by Nature because of their value in establishing the mental attitude of the submission of the human will to the commands of God, as men have expressed it; or in other words in establishing the habit of restraint of individualistic tendencies, and of appeal to the guidance of the racial impulses of social import.

The truth of this is evidenced, it seems to me, in the very fact that the term "sacrifice" has been directly transferred in common language to apply to the voluntary renunciation or repression of individualistic tendencies: the term "self-sacrifice" in our everyday speech has come to mean self-restraint.

Moreover, the very attitudes assumed in connection with sacrifice are ones which are most valuable in the production of a full measure of reverential awe, which would prepare those who watched the ceremonial to give attention to what came to them as commands from those conducting the sacrifice.

The mere process of looking up withdraws our attention from the distracting objects around us, and arouses in us the powerful feelings accompanying the recognition of our own littleness, of the sublimity of what is not of ourselves, as all must realise who from some deep valley have lifted up their eyes to the mountain peaks, or who have worshipped in the noble naves of the Gothic cathedrals. The smoke arising from the altar naturally led the worshipper to follow with his eyes its upward curves, as does the incense burning in the ceremonial of to-day; led him naturally, therefore, to assume a reverential attitude of mind.

But beyond this, these physical attitudes tended to induce in him conditions distinctly opposed to the production of individualistic activities, and were therefore well calculated to bring him into, and keep him in, the frame of mind in which the voice of conscience could most easily be attended to.

But above all we must remember that the sacrifice in all religious ceremonial led to prayer; and the value of prayer in bringing about the advantageous subordination of individualism we have already spoken of at length in preceding sections.

We must not forget, however, that in relation to sacrifice we have a marked instance of the disturbance of what seems to me to be an inborn trend by very complex sacerdotal systems which grew up as man advanced, and which led to the enforcement of customs carried forward by tradition which were not at all of the essence of the

instinct's expression, nor necessarily connected with the original forms of this expression. All of these dominant systems, to which we shall refer more fully in the next division of this chapter, did valuable service in man's social advance through the consolidation of the social bond under powerful leadership, and thus worked in conjunction with the original instinctive expressions to the same end. The sacrifice itself indeed led to like action by masses of people gathered together, so that the custom tended to emphasise the existence of social bonds and to bring men to realise the existence of social unity, a realisation which, as we have already seen, is most important in the emphasis of the social impulses in relation to those of individualistic trend.

§ 10. Celibacy, or the voluntary renunciation of the pleasures of sexual and family life, may be looked upon as a form of self-sacrifice, and it is one that is widespread as a custom connected with religious devotion. It is without doubt true that not a small number of professed celibates do not altogether refrain from the gratification of their sexual passions; and yet if we eliminate this class of pretenders it must be acknowledged that an important proportion of men and women in all historic ages have voluntarily quenched their sexual appetites in assuming the celibate's vow.

That this voluntary assumption carries with it individual distress of marked type will not be disputed, and it is not possible to believe that it has been or is undertaken because of the intrinsic attractions connected with it.

It is true that the monastic life is nowadays attractive to many because it brings with it freedom from the worries of life, and a loss of individual responsibility which satisfies many a soul burdened with doubt and harassed by trial. But it must not be forgotten that although such individual-

istic motives may thus add to the numbers of those who join the monastic orders to-day, no such motives could have been powerful until these monastic orders were already well established, and were appreciated and honoured; evidently, then, the individualistic motives to which we have just referred, cannot have been of moment either in the origin and production of these habits, or in the maintenance of these habits after they had first been formed.

That celibacy, apart from its unattractiveness, is also on its face very often distinctly disadvantageous to the individual, and that it acts in opposition to the persistence of the species, is also clear. That it cannot directly conduce to the persistence of the race is evident, when we consider that if it were carried beyond narrow limits it would lead to tribal extinction. That it is disastrous to many an individual life is also certain; for all who have knowledge of the subject will agree that the life of the celibate is beset with many dangers, in that it conduces to the excessive practice of private vices of one kind or another; and in that it is very liable, as alienists tell us, to bring into existence extremely morbid mental conditions.

On the other hand, we cannot but realise that the morbid mental conditions above referred to are just the ones that are liable to result in the production of hallucinations, and that in adopting the celibate's life, therefore, one takes a step which is not unlikely to bring to him hallucinatory messages, which themselves might be thought to be desirable as guides from another world. This might, in certain cases, lead individuals to voluntary assumption of this form of self-sacrifice. But in a previous section we have seen reason to agree that no such individualistic desire can account for the persistence of habits inducing these hallucinatory states; for, to the mass of men, hallucinations are far from attractive; moreover, we do not forget that to

the mass of celibates no such hallucinatory messages are given.

But here again, as with all other customs which are likely to produce hallucination, we realise that those who acquire the habit, but fail to receive the message, nevertheless do gain in some measure an emphasis of those impulses which are of broader than individualistic significance. In this case the influences which are of a sexual nature being curbed, there is greater opportunity for the "higher" instincts of later development, for the ethical instincts of social import, to become prominent in mind. The very fact that the sexual nature is kept in check forces its demands upon the individual upon occasion while youth and health remain, and thus the celibate's attention is necessarily turned to those voices within him which can only be heard when one gives himself up to introspective examination.

This habit of introspective consideration, as thus aided, being once acquired, will certainly bring about an enforcement throughout all of life of those impulses of an ethical nature which, as we have seen, require time for their development because they relate to general trends of action which appear only when we study long series of subordinate activities; impulses which cannot appear clear if our attention is fixed upon the individualistic demands of the moment, from which the celibate deliberately cuts himself off.

§ 11. In closing this division of my chapter, I shall speak briefly concerning the custom of making pilgrimages, which being to-day of widespread occurrence, and having in the past been of still wider occurrence among many religious people, must not be passed over in our study.

This custom evidently involves individual hardship,

personal loss, and tribal weakening; nor does it show on its face the distinct advantages in the direction of social advancement that I have been aiming to show exist in the case of all other notable religious exercises.

But the reader will recall that in a previous chapter I made mention of the fact that we should expect to find that the social impulses would tend to be emphasised by actions which brought into strong relief the outlines of the social fabric, which emphasised the fact that there are social bonds, that there exists community of interests which must be dominant even where individual likings are occasionally crushed out, that mutual aid is necessary to our welfare as individual elements in social life.

The efficacy of pilgrimages in this direction cannot be questioned; and it seems to me there can be no doubt that their value has been quite in line with that attached to the other religious habits that we have been studying, when we consider that they ended in sacrifice, in prayer, and in other acts of devotion, these acts indeed being carried on with less emphasis during the journey, and being looked forward to in their culmination from day to day.

This value of action in common with others of our race, in the enforcement of the ethical impulses, is clearly seen in the development of worship in community of which we speak more at length in the next division of this chapter; and I may add that the same value attaches to the development of religious societies, and to the conventions and councils, the conferences and congresses, of religious people, which are so marked a feature of our later civilisation.

III

§ 12. In the earlier part of this chapter, as the reader will recall, we noted that if the contention we make as to

the function of the religious instinct be correct, then not only should we expect to find the appearance in our race of habits of action that would emphasise the social, the ethical impulses; but we should also be led to look for the development of certain habits of action that would lead those few who hear these guiding voices clearly to endeavour to enforce the admonitions of these important impulses upon those who do not hear them well.

If this position be correct, then it seems to me we should expect to find, in the first place, an emphasis of the natural efforts made by the man who had heard his "voice," or who had seen his vision in hallucinatory form, who, filled with fear himself, would be likely to endeavour to teach his neighbour to fear the God whose message he believed he had received. His efforts to convince the common mortal of the importance of the teaching from without, as he understood it, would be likely to formulate themselves in many combinations of actions that would emphasise the notion of the all-powerfulness of the God from whom the hallucinatory visions and voices were supposed to come.

This expectation we find to be fully realised. The ethical prophets, and the members of the priesthoods that were set up amongst the most ardent followers of these prophets, have always since the earliest days of religious development preached the all-powerfulness and the mysterious omniscience of the gods whom they worshipped, whether these gods were conceived of as evil spirits or as devoted to holiness.

As the power of priesthoods increased, and the importance of keeping in favour with the gods came to be generally acknowledged, temples were reared to give to these gods homes of magnificence; and the approach to these temples for worship was demanded, with gifts and sacrifices, which

were supposed to appease the wrathful or rejoice the friendly deities, this worship being made full of mysteries which could not fail to be awe-inspiring to the common mortal.

It must be agreed, of course, that morbid developments of these mysteries were started in many cases by members of ruling priesthoods who had discovered in them a source of power which was of great advantage to themselves. But the number of those initiated into the secret processes by which the mysteries of ceremonial were carried on was too large to permit deception to rule in the long run; and unless the value of the ceremonial had been sincerely believed in, not only by the people, but also by the mass of the priesthood, it would not have stood the test of time. On general grounds, therefore, it seems to me we must acknowledge that these mysterious ceremonials, to a great extent at least, must in their inception and continuance have been the outcome of thoroughly honest efforts to impress upon the unthinking crowd the awful majesty of the gods who had apparently revealed themselves to their chosen servants.

We must agree also that these ceremonials must have had other values than this fear of, and sacrifice to, an avenging god, or a god whom it was thought wise to placate. This becomes more clear, I think, when we consider how unlikely it is that any direct advantage would have accrued to the individual or race, in consequence of the wasteful expenditure upon extravagant ceremonial, and costly sacrifice of what could only be obtained as the result of arduous human effort; and we are therefore led to judge that only by some indirect racial advantage connected with this wasteful ceremonial, and with the worship of the god, can we explain the persistence of these manifestations in the race. It seems to me that the advantage looked for can be explained in the fact that the fear which these mysterious

ceremonials inculcated, leading to worship and to prayer as it surely did, gained for the people at large, at certain times in their lives at least, the habit of suppression of individualistic tendencies in favour of social impulses.

It may be claimed that we do not need to look for so occult a basis for the persistence of these mysterious ceremonials, for, as is no doubt perfectly true, the emphasis of the fear of a powerful god, who would enforce the commands of the human ruler, would have a distinctly advantageous effect in the beginnings of man's higher social life. For such enforcement would make possible community of action, under the guidance of one mind to one end; and although this might lead to tyranny and despotic cruelties in many cases, it also would lead, on the whole, to a strengthening of social bonds. And it is to be noted in this connection that in most of the ancient civilisations the king was held to be the high priest of God: this doctrine having in fact come down to our time in the theory of the "divine right of kings," which still persists, notwithstanding the evident ungodlikeness of a large part of those of royal blood.

On the whole, however, it does not seem to me probable that the racial advantage obtained by the emphasis of leadership through fear of the god whose appointee the leader was held to be, can be considered to have been great enough to account for the growth of priestly hierarchies and for the persistence of ceremonial customs that have prevailed. In fact, changes of leadership must have been frequent in the early days of tribal life, and it seems to me that the notion of the divinity of dead leaders, and of divine rights attached to rulership, must therefore have become fixed in the race with much difficulty: and, so far as I can see, the persistence of worship of a divinely appointed temporal master can therefore only be accounted for by some indirect advantages, connected with the habits

emphasised by this belief, other than those related to leadership ; advantage which must also have been connected with the worship of the god upon whom the changing rulers depended for their authority. What I believe this advantage to have been, I have so often stated above that it is unnecessary to repeat myself here.

Those developments of ceremonial which emphasised the purity of God and the demand for purity in the worshipper are clearly an advance over the first ceremonials dictated by the wish to produce fear.

The general type of ceremonial designated by the term *lustration* appears in the widest variety of forms, from the exhaustive vapour-baths still in vogue among savage races, to the simple washing of hands and feet and head ; ceremonials which were oftentimes very elaborate in the older religious services, and which leave their mark in certain customs inculcated by the Churches of latest development, in the form of baptism, and in the use of holy water, for purposes of symbolic purification.

All of these customs were in the line of the production of reverence for the God who spoke to His people through His chosen servants : they enforced the notion of sinfulness in the presence of a purity almost beyond conception, and had their direct effect in bringing men to believe in their own helplessness and in the power of the Deity to aid them.

There can be no doubt that laws relating to uncleanness had in many cases sanitary significance, and thus may have given some advantage of a very indirect kind to a tribe in which these laws were enforced : lustration, in fact, may not infrequently have been of individual curative advantage. But I cannot bring myself to believe that this purity, real or symbolised, can have had in itself any sufficient advantage to account for the persistence of the customs connected

with its enforcement; for in many cases it is very clear that the actions connected with the ceremonials of lustration were exceedingly exhaustive and hence of distinct individualistic disadvantage. It can only be surmised, I think, that some indirect advantage was attained by those in the race who assumed the mental attitude connected with these ceremonials: and that attitude of mind I have already spoken of as connected with awe, with reverence, bringing that suppression of self-will that leads one to listen to impulses that are not of individualistic import.

§ 13. At this juncture I shall ask my reader to consider again the habits spoken of above which are connected with the initiation into the mysterious brotherhood of the religious body; ceremonies which are evidently in themselves unattractive, and clearly disadvantageous from a purely individualistic point of view, but which nevertheless have persisted in the race in a most extraordinary manner. I think we shall find that they also are explicable in the fact that they are advantageous in enforcing the habit of restraint from acts of purely individualistic import until impulses of deeper significance can prevail.

As we have already argued, the habit of restraint from individualistic reaction, fixed in the race because of its advantage to the social life in which the individual is an element, has been enforced often by the emphasis of the non-individualistic impulses in their most emphatic form under the abnormal conditions of hallucination. This being so, it is not difficult to see how it might have come to be considered most important by the leaders who had once listened to these voices, or who had once seen these visions, to obtain recurrently what were thought to be "inspirations" in this hallucinatory form; and, as we have seen above, men were doubtless in some cases thus led to make

voluntary efforts to produce these hallucinations, through extreme fasting, continuing tortures, unnatural deprivations. More than this, those who were convinced of the value of these hallucinatory states would be naturally led to attempt to induce or even to compel others to gain these experiences.

But a large proportion of these rites involve extreme suffering and great physical weakening, which in themselves must be repulsive to the barbarous man, and which evidently are an immediate source of weakness to him and to the tribe at large. In many cases, indeed, among these savages it is not until the participants in these ceremonies fall in fainting fits or go into comatose states that they are considered fitted to enter the religious brotherhood. Still we recall that in many cases it is not until one reaches the verge of unconsciousness that hallucinations appear, and if our hypothesis be valid we are thus able to account for the extremity to which these ceremonies are carried.

But it must be remembered that a very small proportion of those who submit themselves to these initiatory tortures do in fact gain these "messages"; consequently, even if the origin of these customs can be traced to the desire to gain states of hallucination or to force them upon others, the persistence of these customs cannot be thus explained.

Yet, although this be true, on the other hand it is equally true that those who participate in these rites place themselves under conditions which lead naturally to the same advantageous emphasis of the non-individualistic impulses that is given when the trance state is really reached; and it would appear, therefore, that if the habits connected with attempts to produce these hallucinatory states by compulsion persisted, as they have persisted, it would be not at all because the hallucinations, gained in relatively few cases, could be of value to the average man, but because the habits of restraint and of listening, which are of so

much advantage to the race, would thus in the main be enforced.

We have here then, it seems to me, an adequate explanation of the persistence of the barbarous initiatory rites which were found as we know amongst savage peoples of olden time, and which in somewhat less cruel form have come down to our time in crude forms of religious worship.

§ 14. Here we may note another fact which appears to be of no small value as corroborative of the position above taken, viz. the fact that the performance of these initiatory rites is very closely related to the approach of the age of puberty in the active participants.¹

That this relation between the time of the enforcement of these initiatory rites and the growth of sexual capacity is one to be expected, seems to me clear; for in the most ancient times when phallic worship was prevalent, the greatest interest must have centred upon this period, and the customs of those days would naturally come down to us in modified form because they would be found to be valuable; for it is most natural to take advantage of this moment of life to turn the attention to non-individualistic impulses.

At the age of puberty the boy and the girl have suddenly forced upon them racial leadings that have never before been felt; at this period of their lives they are compelled to attend to cravings of an organic nature which demand satisfaction and yet which are based upon no personal experience of previous satisfactions. Boys and girls then become perforce introspective; and it is at this moment that the general teaching to listen to the "voices" within them would be most likely to prove effective.

¹ Cf. "The New Life," A. H. Daniels, *American Journal of Psychology*, vi. 1: also two articles by Mr. Starbuck in the same journal for January and October 1897.

For a large body of fact regarding the initiatory rites among savage tribes, and their relation to the approach of puberty, I would refer the reader to Mr. Daniels' article mentioned in the footnote. In our own race, and in our own day and civilisation, it is to be noted that it is at this time of the awakening of the sexual life that the Roman Catholic Church would compel her followers to partake of their first communion, as a symbol of their submission to her religious guidance; and even amongst those who are allowed much more choice in such matters we find that it is at this epoch in their lives, at this moment of entrance into manhood and womanhood, that the most vivid impression of the value of religion is usually gained.

In my opinion it is indeed of the greatest importance that this impressionable moment should be seized, as it very commonly is, for the establishment through religious ceremonial, and other like influences, of habits of renunciation and of attending to the influences of the deeper impulses within us. The boy or girl who passes this time of life without gaining these most valuable habits is very liable to find it difficult to gain them in after-life.

§ 15. In what has preceded this we have been considering the advantages that would accrue to the race by the enforcement of religious habits principally by means of appeals to man's deep-seated fears.

But there is another direction in which religious ceremonial might bring, although still more indirectly, the same advantage. There will always be in every race many who cannot often be led to worship by fear, and who will not wish to be "cleansed"; yet many such people may be attracted by stimulations of their æsthetic sense, if we may so speak: thus we should expect to find, as we do find, a tendency to give æsthetic significance to the religious

ceremonial. Not only do we recognise this in the magnificence of the pageants arranged in connection with pagan religious services, but we realise that in all religious services of our own day there is some remnant of this effort to attract by producing effects of beauty; and furthermore I think we are compelled to agree that such ceremonial will remain perfectly legitimate so long as the body of the people fail to realise the true basis of religious life and need to be drawn by some extraneous influence into the company of worshippers if they are to obtain religious benefit.

It must be remembered also that the attitude of mind which one must gain if he is to appreciate æsthetic work is an attitude of receptivity, and almost altogether of passive receptivity, an attitude of watching for effects from without, of absorbed attention to these effects. In the thorough enjoyment of powerful æsthetic effects we stand "entranced," as the saying goes, and this mental condition the reader will at once see is the very one in which religious impressions are most readily gained.

There is still another close alliance between the æsthetic and the religious mental attitudes. For, as the reader will remember, we have seen that religious service gains its effects in many cases by the powerful, although often unrecognised, emphasis of the social bonds which exist within us, of the community of interests, and of the necessities of unified action. But as I have attempted to show elsewhere,¹ the function of Art in the development of man is itself the consolidation of our social life.

If all that I have said in this section be true, the æsthetic and the religious activities are bound together in a close communion, so that æsthetic interests must in their very nature tend to produce the conditions under which our religious impulses are most readily unfolded.

¹ *Æsthetic Principles*, p. 82.

§ 16. In looking back at the habits of religious people in the past, as a whole, I think we cannot fail to realise that the most important of all religious activities have been, as they still are, the customs which bring the common man to gain the attitude of prayer in companionship with his fellow-man; and this because when men gather in great masses they unwittingly learn of their social dependence, this impression adding to the force of religious ceremonial in tending to repress the emphasis of individualistic impulses.

In what has been written above, we have perhaps laid too little emphasis upon the guidance of the masses by men of ethical genius, we have, in order to avoid digression, purposely overlooked the fact that the ordinary man is not able, unassisted, to note the dimmer impulses within him, although he will readily recognise their existence when his attention is attracted to them.

Among the lower races some individual gains in one way or another the habit of restraint; he sees a vision, notices a voice commanding him, or perhaps merely hears what we call the "still small voice" of conscience. He interprets this as an inspiration, as a revelation, as a message from his God. He tells this to his people, and if he be a man of force they, dimly feeling the influences which he feels powerfully, obey his call which answers to some extent the vague impulses within themselves. They call him their prophet: his God becomes their God, and with their prophet they learn to pray. He teaches them to assume the attitudes of prayer, or to join in other religious ceremonials which have been effective for himself, and which in turn also become effective in enabling them, his followers, to hear the "voice" that is leading him.

§ 17. But there must be those who cannot hear the

voice even thus, and to such we should expect to find teaching given by the ethical leaders: as a matter of fact, this habit of teaching is universal with all higher developments of religion. Having through fear or other means produced in his hearers the attitude of mind in which they are best able to hear the "voice," the prophet teaches them what this "voice" has said to himself, and if he be an ethical genius he blows into flame a fire that was ready to kindle within the souls of his hearers; he calls to their attention impulses which they recognise as their own when he tells of them; impulses, however, which they would not have perceived had he not spoken to them.

This teaching is often followed by compulsory treatment of those who refuse to act out the "voice's" commands; and this has often led to a morbid development of the power of the priesthood of which we have above spoken. This power being of advantage to the priesthood as a body, it has often been magnified by subtleties and trickery. But this morbid development of what must have been inherently advantageous tends gradually to disappear with increase of intelligence in the race, leaving still with us the custom of teaching to others the importance of listening to the "voice," and the habit of imparting to those who are dull of hearing the precepts which have been grasped by those who have been able to hear clearly its commands. In the later developments of religious ceremonial which persist amongst the most intelligent of our race, although the priest or preacher seldom claims direct inspiration from his God, he still claims to be specially authorised by some body which directly or indirectly claims Divine authority.

The custom of teaching in the house of worship the precepts that have been given to the prophets of old, or to those who have taken their place in more modern times, has as years roll by become more and more important in

relation to the rest of the ceremonial. The teacher still emphasises to a great extent the majesty of God, still stirs within his hearers the reverence which goes with fear; but in the religious life of those of highest intelligence the emphasis of fear has been replaced by an emphasis of a reverence connected with love for an all-powerful yet merciful Creator, who is looked upon as a Father rather than as a haughty ruler.

And with all this emphasis of love as a characteristic of the Divine life, and of sympathetic action with our God as his humble followers, everywhere does the teaching of religion emphasise the necessity of a curbing of our own individualistic tendencies and of the encouragement of habits of listening for and obeying the voice of conscience.

It seems to me natural that the teacher should emphasise the value of the special habits of action which he has found effective in producing what he feels to be the inspiration within himself; and it is not surprising, therefore, that we find the religious habits we have been describing looked upon and enforced as matters of duty; and to find special extreme indulgence in them encouraged, the habits being looked upon as virtues in themselves.

The monastic life, fasting, penance, prayer, the sacrifice of what is dearest to us, celibacy, pilgrimages, have all been encouraged as of significance in themselves, and oftentimes have been proclaimed as the only means of salvation: and where no such extreme teaching has been given there has always been a tendency to emphasise the importance of these habits by ceremonial means.

§ 18. If the preceding argument has appealed to my reader he will agree that the function of religion which lies back of its ceremonial is the suppression of the

tendency to individualistic, elemental impulses, in favour of those which have higher significance.

But, as we have stated in what has preceded this, and will bring into prominence in the fourth division of this book, the latest elaboration of the tendency to elemental variance is what we know as Reason. It is equally clear, I think, that in self-restraint and the suppression of individualism, in the cry for aid and guidance, we gain that complex psychic state which we know under the name of Faith.

It would appear, then, that in relation to our modern complex and self-conscious intellectual life the function of religion will lie to a great extent in the restraint of reason and in its subordination to faith.

It is most natural, then, to find that religious leaders in all later times have emphasised this teaching. Especially in the doctrines of the Christian Church do we find ever recurrent this dictum that reason must be subordinated to faith. At times, indeed, the insistence upon faith in the unseen giver of inspiration has been replaced by the demand for faith in some special human authorities who have set themselves up as dictators. But apart from these cases, it seems clear that the teaching of the subordination of reason to faith which is so characteristic of modern religious systems, captious as it often appears, is nevertheless on the whole fundamentally in accord with the permanent and valuable elements that have persisted through all changes of religious habit: for, as I have said above, what is called reason is the latest development of the tendency to variance within us, while the faith which we are called upon to substitute for reason implies a dependence upon guidance in the ways our ancestors have trod, by those voices that speak to us from within or that have spoken to those religious teachers upon whom we most rely.

It is to be noted, also, that in the later developments of

religious teaching there is a growing emphasis of the importance of personal effort to attain the leadings of the voice within ourselves, to be guided by influences that are all our own rather than by authoritative statements of the faith taught by others. How far this is a valuable tendency we cannot stop to consider: we are concerned here merely to note that even in this latest of developments the teaching of religion leads to the emphasis of racial impulses within us, and to a suppression of what is of strictly individualistic import; to the emphasis of the established order of impulse efficiency which has been implanted within us by Nature.

§ 19. Before closing this discussion, let me say a few words in reference to the point made in § 4, above, viz. that if the function of the religious instinct be the enforcement of racial demands, then we should expect to find in the most effective of religions the production of an enthusiasm in the working out of the impulses that are brought to man's notice as the result of religious practice.

The attitude of the listener is not the attitude of one who acts, and if religious custom brought to the devotee nothing more than the hearing of the voice we could expect it to be of slight efficiency in racial development. But the religion that teaches action after conversion; that says to the praying man, as the voice of his God said to the scriptural prophet of old, "Son of man, stand upon thy feet"; and that urges him to act out the dictates of the "voice" aggressively and with enthusiasm; that religion will tend to prevail, as against one that leaves the worshipper in a state of contemplation.

That this expectation is fulfilled, that effective religions produce this enthusiasm, becomes clear when we look back to the history of the past. Religious enthusiasm has led to

the destruction of those who were thought to worship false gods; as the Israelites again and again attempted to crush out the prophets and followers of Baal. In later days it has led to attempts to force at the point of the sword the religious tenets of one race upon all other races that have come in contact with the one affected with religious fervour, an acknowledgment of conversion being all-sufficient to save the conquered from physical death. Instances of such action we have in the religious wars waged by the Mohammedans, by the Crusaders, and by Charlemagne against the Saxons. In other and more highly developed races we find the enthusiasm limiting itself to attempts at real conversion of spirit: such movements being exemplified in the missionary work which has given so great efficiency to the Christian Churches.

As intellectual rather than physical forces have become more prominent, and as the religions that emphasise love displace, in our modern life, those that emphasise fear as the basis of devotion to the cause dictated by the voices of conscience, the value of the acts of worship, with their accompaniments of praise and thanksgiving, show in greater clearness, in the fact that they tend to raise the worshipper into a condition of joyous activity, giving him an enthusiasm to work for social advancement in the direction in which his newly recognised impulses would lead him.

This tendency to undertake social work, and to study social problems, is a marked characteristic of modern ecclesiastical developments.

CHAPTER XI

CERTAIN CORROBORATIONS

I.—OF CONVERSION

§ 1. WE have now passed in review the most marked types of religious expression, and to my mind have found that the persistence of these religious activities in the race can in the main be explained in accordance with the tentative hypothesis as to their biological function which I have presented. It may be well for us here to note certain corroborative testimony of an indirect kind which presents itself.

Let us consider for a moment certain facts in relation to the time of the manifestation of the religious instinct in the life of man.

Instincts, as we have seen, may in a broad way be divided into two classes: First, we have those that show themselves at birth, which we agree to call "connate" instincts; and second, those that do not appear until some time after birth, which we call "deferred" instincts. It is to be noted, moreover, that as instincts are determined by, and have significance in relation to, development, they must necessarily appear in the life of an individual in an order in general correspondent with the order of this development; we are warranted in believing that the order of their

appearance in the life of the individual man indicates in a general way their temporal position in the order of racial development, or, in other words, indicates the time at which they appeared in the organic series from which our higher forms are descended.

It is thus that the child at birth shows at first only individualistic tendencies: that indeed the individualistic instincts at first evidenced relate simply to the sustenance of the body, and only those appearing later relate to more complex protective reactions. It is thus that the instincts which relate to sexual reproduction are deferred, *i.e.* fail to appear until that time of life which we designate as the age of puberty. It is thus that the emphasis of the ethical instincts is on the whole brought into prominence still later than the age of puberty, although, as we have seen, it is often projected forward in our lives by processes of an educational nature.

From these facts we would be led to argue, even were there no other evidence, that our earliest progenitors first acquired those instincts which relate to the obtaining of sustenance; that their descendants acquired more complex instincts relating to individualistic needs; that later still the ancestors of our race acquired the original simple sexual instincts which we are able to examine only in their elaboration; and that not until a comparatively late period, biologically speaking, did our prehistoric human forefathers gain the germs of the ethical instincts which, as elaborated, produce in us our "higher" impulses.

If all this be true, and if it also be true that the religious instinct has been formed, as I surmise, for the regulation of the relation existing between these "higher" and later, and these "lower" and earlier, instincts; then we are warranted in assuming that the religious instinct will be one of the deferred type, that its expressive actions will not appear in man at birth, nor until he is fairly mature; although it is

quite possible that the manifestations of its expression may be found to be transferred artificially to an earlier period of life in the same manner observed with what are usually called the ethical instincts.

If man were without educational tendencies, if there were no machinery for the teaching to the young habits of action which are to be of value later in life, if individuals of our race were not "born to learn" and "born to learn the same things,"¹ it appears to me that the tendency to religious expression would be much deferred, and that it would appear much later in life than the tendency to what we usually call the ethical reactions. That it is so deferred, as we shall presently see is the case in the lives of many men who are not affected by these educational influences, is sufficient evidence to lead us to believe that the suggestion to which theory forces us is probably correct. For as a matter of fact the religious instinct has come to be of such inestimable value to man that it has become a habit of the race to encourage its expression by command, and by the enforcement of imitative education, so that the *forms* of religious expression become normal to very small children.

It is acknowledged, however, that these artificially acquired habits of action are not instinctive at a very early age in the very fact that it is also acknowledged that there comes a time of life for a large proportion of men and women when they, more or less suddenly, discover that within themselves have developed impulses which guide them to undertake spontaneously these religious expressions which before had been but imitative or compulsory.

In a large proportion of normally educated people the process is that which I have just sketched out. From the earliest childhood the average youth sees those around him

¹ Professor J. Mark Baldwin, *Social and Ethical Interpretations*, p. 71.

whom he loves and respects engaged in practices which have religious significance. The imitation of these practices is most natural, and the tendency to copy the action of his elders is fostered by the encouragement of those who look upon religious service as essential to salvation. But some day after the child is grown to mature years he notes, or has his attention directed to, the call within him which convinces him of sin. He then feels the need of these very practices which he has performed hitherto in a perfunctory manner; and in the acknowledgment of this need of guidance from the impulses which become powerful when he gains the religious attitude of mind he becomes a new person, gains a new light, finds himself guided by a new power which leads him to a suppression of individualistic desire in favour of the higher impulses within him. This is the moment of "conversion," as it is commonly named.

As I have already noted, there is a tendency for this impressive change to occur about the age of puberty, for then the child has forced upon him the voices of newly appearing sexual instincts which are connected with none of his previous experiences; then he is compelled to become introspective, to listen to the voices within his soul; and then most naturally does this tendency to listen, to know of himself, lead to the recognition of the still higher voices which are beginning to demand attention, and which lead him to curb his immediate reaction until the deeper-lying impulses can gain force and proclaim their rightful priority.

The reader will realise from what has already been said that the religious instinct, even at this time of life, is only incipient, and is probably transferred forward somewhat from its natural temporal position by the educative processes already dwelt upon. That this is true is evidenced by the ordinary ease of conversion when artificially stimulated at this time, as contrasted with the violence of con-

version when it occurs later in life, when the fully-developed instinct is suddenly called into action.

It is to be noted, however, that for very many individuals the growth of this religious tendency is even more gradual than is above described, and the transition point from non-religious to religious guidance scarcely recognisable : so gradual indeed is this change that many of those who have been brought up in a religious atmosphere are unable to recall, as they look back at life's experience, any moment at which the change from non-religious to religious guidance occurred.

In fact the notion that the religious attitude is gained suddenly, and often with shock, would not generally obtain were it not that a goodly number of people do not gradually acquire the religious attitude, for the reason that they do not in practice learn by precept to subordinate their individualistic impulses, but on the other hand do live a life in which the distinctly individualistic instincts and those relative to reproduction are fostered, so that they give themselves no opportunity to note the rise of the inner guidance which religion gives.

To such individuals the knowledge of the existence of the higher instinct is altogether lacking until some day it forces itself upon them in a startling manner, usually as the result of some shock which leads them to note the weakness of their individualism, which turns them to call for guidance in time of perplexity. And in such cases the rise of the religious instinct usually occurs some time after what are usually called the ethical instincts have become prominent in the man's mind. Such is the conversion which makes a mark in the memory of the self-convicted sinner, which leads him to signalise some moment in his life as the turning-point at which he gained the new impulse from religion.

It is because of the startling nature of such experiences that they have come to be considered normal in the attainment of the religious attitude of mind ; and this principally because startling conversions have often turned men of marked immorality to lead lives of marked purity ; have often led men of force to devote their lives, from the moment of conversion, to religious service and to religious teaching, and this with many a noble sacrifice ; have led them, impressed by the value of the crisis in their own lives, to aim to produce a corresponding crisis in the lives of those around them by whom the voice of religion has not been heard.

§ 2. It is well to note here an interesting and instructive parallel between the nature of the experience accompanying the rise of the religious instinct, and the nature of that accompanying the rise of the sexual instinct.

The average individual in our life of social pressures grows up surrounded by others of the opposite sex, and unexcited by the difference of sex until the age of puberty approaches, when some day the boy or girl finds arising within an incipient impulse which naturally, were there no restraints, would lead him or her to exercise his or her sexual powers in the sexual act.

But this instinct, which if uncurbed would lead to sexual activity, is, as we have seen, a very different thing from that instinct of more complex form, and broader range, which leads the individual to wish, not for momentary excitement, but for a permanent mating, for a home, for a family. This latter instinct which we have described under the name of "romantic love" appears later than, and is not necessarily involved in the appearance of, the former-mentioned instinct which would lead to sexual action ; in fact, unrestrained submission to the earlier rising instinct is not unlikely to dwarf, and even to crush out of existence, the

later instincts of higher type; a fact that is sufficiently evidenced in the lives of the licentious of both sexes.

In the average individual of the civilised races the demand for a permanent mate follows not long after the appearance of puberty. If upon its appearance it were at once gratified there would be no striking element to signalise the appearance of the instinct. In fact in many cases this is doubtless the experience of mankind; and this even among the members of the higher grades of society, where, notwithstanding social restrictions, companionship begets friendship, and friendship merely seems to *ripen* into love.

But in the nature of our complex civilisation there are many artificial restrictions to the manifestations of the higher forms of the instincts relating to reproduction, of which we are speaking. The artificial demands of custom which require a man to gain a certain fortune before he may marry, and many special pursuits which artificially separate the sexes, work to bring about avoidance of the stimuli to the rise of these higher instincts. They thus fail of expression until the time of incipency is past, until they have gained full power of reaction; and then we have the phenomenon of "falling in love," which sweeps away the barriers between the lovers with a startling force quite comparable with the force with which the religious instinct presses itself upon the sinner in the moment of conversion.

It is to be noted that the average individual of the higher classes does "fall in love" lightly, if we may so speak, rather early in life; has his or her "first love." But amongst civilised people the restraints of modern life usually repress these early manifestations of the higher forms of the instincts relating to reproduction, and wisely so. But in this very repression they prepare the way for a later manifestation of the same instinct which will carry all before it with overwhelming power, and which appears

in that permanent love-mating which is willing to sacrifice much, and to accept the most binding assumption of possible burdens, for the sake of the joys and happiness which go with the gratification of this mating instinct.

§ 3. There is another corroboration to which I would here very briefly call the reader's attention. He will realise as soon as his attention is called to it that the expressions of deep sorrow, and of sadness and depression of spirit, are closely allied with the expressions of our religious instinct. It is most natural, therefore, to suppose that in times of sorrow and depression, when vigour of initiative is gone, and individualistic reactions are reduced in power,—that then our religious impulses will be likely to become prominent in mind. The mere mention of this suggestion, I am sure, will at once command the assent of the reader who realises in his own experience how often sorrow brings religious conversion to the man who, hitherto unaffected by sorrow, has lived a life of pure self-interest.

It is to be noted also that in the very nature of sexual life, as we find it in ourselves, men are on the average more aggressive and women more passive; men naturally more given to vigorous initiative, women to obedience and gentle service. But the characteristic of individualistic initiative, if we are correct, stands in opposition to religious dominance, while the characteristics of passivity, and readiness to obey, must be specially conducive to the emphasis of religion. It is to be expected, therefore, that we should find, as we surely do find, men as a class less ready, and women as a class more ready, to give themselves up to religious influences, to devote themselves to the truest of religious lives.

Could we but transport ourselves to some far-distant planet, where the influences which would make the "new

woman " in our day, which would invert Nature's established initiative and passivity in the sexes, where these influences had prevailed for an æon or two, and had actually reversed the position of the sexes in the direction above indicated ; then in the Londons of that unhappy planet, on the Sundays of their weeks, and on their holy days, we should surely find the churches occupied in large proportion by the men, and the club-houses filled with women.

II.—OF PHALLIC RELIGIONS

§ 4. Let us now look back into the dim past and imagine the conditions which must have existed amongst the ancestors of the human race who were just emerging from the animal forms from which we believe man to have been descended.

If the religious instinct was contrived by Nature to emphasise the importance of subordinating our instincts in relation to the [order of their formation, then we might possibly surmise that it, or some instinct corresponding with it, might have arisen in its germ in connection with the effort to subordinate the purely individualistic instincts to those which function in the reproduction of the species.

That the instincts having directly to do with sexual relation, and the instincts connected with pursuit of and the attraction of mates, were acquired very early in the history of animal life is evidenced by the fact that they are firmly entrenched in all types of animal life above the very lowest. We cannot expect, therefore, to find in them or in ourselves any indication of the struggles which may have been necessary, of the pressure Nature may have brought to bear, before the purely individualistic instincts could have been so held in check that the instincts directly re-

lating to reproduction could have become firmly established as dominant over the purely individualistic instincts.

But, as we have seen, there is a set of instincts found in man which relate, indirectly, to be sure, but for all that solely, to reproduction, and which have been relatively very late in acquisition by our ancestors. I refer of course to those instincts which function to the perfection of our race through the protection to the young which can only be effected by permanent mating of the father and mother. Temporary mating we discover in many of the higher animals, but in man only do we find firmly established the instincts which tend to fix permanently the bond between man and woman. As we have seen, there is much reason to believe that these instincts were acquired contemporaneously with some of the lower grade of the social instincts.

There is much evidence at hand also, in the condition of certain barbarous races to-day, and in the frequent and easy lapses from normal marital relations by both men and women of our own time, that the genus *homo* was originally as promiscuous in its sexual relations as any tribe of apes that roam the forests. But just as certain is it that the establishment of the instincts determining permanent mating have marked the rise of the human race above its fellow-animals. The responsibility of parents for the sustenance and protection of their offspring is the very foundation of the efficiency of man in the struggle for adaptation to his environment.

As we all will agree after study of our own experience, the force of the sexual instincts which would lead to promiscuous sexual relations must have been enormous, and Nature may not impossibly have needed to use some special means to force upon man the repression of these powerful sexual instincts in favour of those which lead to permanent mating. As this last set of instincts were probably

established coincidently with certain of the social instincts of low grade, as we have already noted, it seems not improbable that means for the establishment of these instincts may have been adopted by Nature of a character similar to the means adopted later on to repress, in favour of the social instincts, the demands of the individualistic instincts, as modified with relation to those functioning in connection with sexual union and the pursuit and attraction of temporary mates.

This thought seems to me to throw some little light upon a very ancient and obscure page of human history, and at the same time to give us a strong piece of corroborative evidence in favour of the theory I am here suggesting.

In our records of the dimmest past we find evidence of religious customs which related to what seem to us the grossest of sexual immoralities, and in the habits of certain uncivilised races to-day we find still persisting certain rudimentary forms of this religious service, whilst in our own religious customs and ceremonials there are not a few reminiscences of what could only have originally had significance in connection with such religious service. This prehistoric form of religion we call phallic worship: I shall say here the few words in reference to this subject which seem necessary to the argument.

The treatment of distinctly sexual acts as of definite religious significance has indeed almost disappeared from the life and thought of modern times. It is true, as I have just stated, that a few of our modern religious customs and symbols appear as the remnants of late transformations of customs and symbols which were used in ancient phallic worship; but I think it will be granted that even the modern "worship of the goddess lubricity," of which Matthew Arnold speaks, can only by a figure of speech be allied to what we here consider true religious service.

In fact, were not our attention attracted to the subject by the considerations which have just been stated, the almost total disappearance of these forms of worship would perhaps warrant us in passing over the matter entirely, notwithstanding the fact that historical remains convince us that in the olden days these customs were exceedingly persistent in the race. A large proportion of the religious contests of which we read in the Old Testament scriptures were, in fact, according to the judgment of certain authorities, a warfare against the last remnants of these customs, which we have come to regard as of most vicious character, and absurdly remote from all that we think of as religious.

But it seems to me that if we look back far enough in the history of our race we must take a very different view. If the positions I have taken are defensible there must have been a time, long before any of the higher social, ethical, instincts had begun to be formed, when the function of the restraint which we now see embodied in religious expression must have been of inestimable service in its enforcement of those instincts which have special relation to the emphasis of perfection of individual life rather than of its mere persistence.

The quasi-religious ceremonies and forms of worship in which, in those pre-ethical days, restraint from pure individualism was developed, must doubtless have been very different from those with which we are acquainted; but it is highly probable that they led the worshipper to listen to the promptings of what were for him then his higher instincts; instincts which in us have become almost entirely spontaneous, and indeed subordinate to nobler instincts of social import.

If we consider those early times when man's typical life must have been very close to that of the animals with

which we are acquainted, when the gratification of sexual passion must have been utterly unrestrained and promiscuous, as it is with most of the animals, then my reader will perceive how tremendous must have been the pressure which must have been brought to bear upon our race in one way or another before our ancestors in those far-off days could have acquired the habits which have become instinctive with us, and which bring with them the sense of responsibility for the care and sustenance of our offspring.

Animal life of low type persists because of the vast number of new individuals that are born, a number so vast that notwithstanding adverse conditions and hostile surroundings some small proportion are likely to be preserved from the slaughter which overtakes the majority of their myriad brothers before they can reproduce their kind. Only in animal life of higher types do we find this persistence attained by the protection of the young from danger and starvation.

In the race of man this protective action has developed far beyond anything of the kind which is to be found amongst the animals, and has produced in ourselves a sense of responsibility for those whom we beget, which can only have become fixed in our race through the pressure of efficient forces through many ages.

We must note that, in all probability, the animal can have no conception of the relation between the sexual act and the birth of offspring; the knowledge of the connection between the momentary act and the far-off result implies the growth of a high degree of intelligence in the developing man; and we must consider that, even if after the early man began to realise the connection between his act and the production of offspring, the thought of responsibility for the life of the child could only have been fixed in the

race with difficulty; yet this thought of responsibility is certainly the very foundation of man's supremacy over the animals below him in the scale.

That religious service in its earliest forms should have tended to bring into prominence this sense of responsibility in the fact that it restrained individual passion, that the prophets of those early religions should have preached the solemnity and holiness of the sexual act, seems to me to be most natural. The preaching of the sanctity of the act which led to the production of offspring will indeed be seen to have been a natural development of that religious life which functioned to the emphasis of the importance and responsibility of procreation.

Most natural must it have been for the fathers and mothers of those days to devote their sons and daughters to the phallic gods;¹ most natural in ruder times to sacrifice the first-born to the phallic god, and in less barbaric times to give the first-born to the service of the god; most natural to make the first sexual act also an act of consecration; most natural that men of serious mind should have treated sexual acts as matters with which religion had to do; most natural that the very temple of their gods should have been chosen for acts of a sexual nature.

If it is not difficult to understand how all-important such religious service must have been in the prehistoric race, in which Nature was aiming to break down promiscuous sexual relations and to produce the germs of family life;

¹ It seems probable to me that the practice of circumcision may be traceable to the days of the dominance of phallic worship, when no more fitting mark of honour to the gods could be conceived than the offering to them of a part of the very flesh of the organ which was to be sanctified. I surmise that the act of circumcision may have been at first performed at the age of puberty, as it is now among savage races; but later on, for reasons of convenience, and to avoid danger of death before consecration, that it was probably performed in childhood, very much as adult baptism has been displaced by infant baptism.

on the other hand, it is easy also to see how, later on, those of growing intelligence, in whom the higher ethical instincts were beginning to form, must have found their religious life gradually leading them away from the phallic religion of their fathers. Mighty indeed must have been the ethical battles waged in the name of phallicism against the heretics of that day who had learned to see that religion embodied higher truths than those that were taught by the established phallic church. The last shadows of these contests are just to be seen in the mists of the historic horizon.

If this be true, it is not difficult to account for the persistence of habits of religious action which at one time in the life-history of our race must have been of such fundamental moment: habits which must have aided in the formation of those instincts within us which mark us as distinctive by many grades from the animal life that surrounds us; habits which, misinterpreted by some, and without any doubt used for vicious purposes by others, must still, on the whole, have had their valuable function in the repression of sexual excess and in the building up of that interest in the race that is to follow us, which is so evident a characteristic of our higher civilisation.

CHAPTER XII

I.—A SUMMARY

BEFORE we proceed further it will be well to review briefly the course of thought in the chapters that have preceded this, as it will aid us, I think, in the development of the remainder of our discussion to recall the steps already taken.

Having devoted our first chapter to an introduction, and the second chapter to a consideration of the method to be employed, the reader will recall that in the third chapter we took a general view of the nature of those activities of animal life that are commonly considered to be determined by instinct, and of those that are commonly considered to be determined by reason, which latter are often placed in opposition to the instinctive.

After certain definitions and a general statement, we turned to a somewhat more technical treatment of the subject.

At the start we took up the study of living matter in its simplest forms, and we saw (§ 4) that growth in these cases implies fission; and further that, if growth is to continue, this fission must be followed either by separation of the parts thus divided off, or else by the formation of aggregates of a type in which there must necessarily arise differentiation of functioning amongst the units thus aggregated.

These aggregates having come to exist, it appeared (§ 5) that any change in any cell in the aggregated mass will tend to bring about some alteration in the other cells that are contiguous to the one altered. Thus the action to which a superficial cell would be prompted by a stimulus from *without* the aggregate, would be modified by the action to which it would be prompted by the stimuli coming from the cells contiguous to it *within* the aggregate.

Here in the very beginnings of life we noted the workings of two influences: First, the elemental variant influence leading the cell to accommodate itself to the environmental stimulus without reference to its neighbours in the aggregate; and second, and coming later into play, the influence from the aggregated mass.

But it seems (§ 6) most probable that the formation of aggregates of differently functioning units must have been brought about because cells which are parts of an aggregate have an advantage over cells which act separately; and if this be true it must be of advantage to the cells of the aggregate that they subordinate their tendencies to elemental action to the tendencies within them to act as parts of an aggregate. In other words, we should be led to expect to find the elemental variant influence above spoken of subordinated, on the whole, to the influence from the aggregate.

Turning then (§ 7) to the consideration of higher forms of life, we saw that in the process of evolution the aggregation of cells has led not only to differentiation of functioning, but also to inter-relation between the differentiated cells, and that thus what we call organisms appear in nature.

With the growth of organisms in complexity and integration each influence from the environment upon one cell will indeed tend to be more or less effective upon all cells, but

at the same time *pari passu* with the growth in complexity, and notwithstanding the increase in integration of the cell parts, the secondary influence from the other cells of the organism will become more and more complex, and less immediately effective. But for all that, notwithstanding the uncertainty and delay which is involved with complexity, it seems fairly clear that under the stress of conflict those cells, or cell-made parts, will still have the best chance of survival which subordinate their tendency to immediate reaction as individual cells, or cell-made parts, to the tendency to react as mere elements of the whole organism. For the persistence of the organisms shows that they are better adapted to accommodate themselves to environmental conditions (with incidental protection to their elemental cells) than any of the elemental cells, or cell-made parts, themselves would be if they acted as though isolated. It thus appeared that in organisms of a higher type we should be led to expect to find what we had already noted in the lower forms of mere aggregation, viz. that the elemental variant influences are on the whole subordinated to the influences from the organism.

We saw thus that in the subordination of elemental to organic tendencies we have the explanation of the elaboration of what we have learned to call instinctive activities, *i.e.* activities which tend to the advantage of the organism as a whole and not especially to the advantage of those special elements of the organism which are directly affected by the environmental change.

Reserving all strictly technical discussion for later chapters we contented ourselves with the statement, which seemed to result from our study, that while on the one hand the activities that are determined by influences from the organism are what we know as instinctive actions, those on the other hand which are determined by elemental

variant influences are the ones that we call "reasoned actions" or, more commonly, "intelligent actions."

In the second division of the book we undertook the special study of Instinct, *i.e.* the study of the organic influence upon action.

In the fourth chapter we entered into a technical defence of the definition of Instinct we had adopted.

In the fifth chapter we attempted to classify the principal instincts, considering them from both the objective and the subjective points of view. We studied first (§§ 4 to 11) the instincts which relate to the persistence of the individual organism: this class we found to include a large proportion of the instincts which are familiar to us in our every-day life. In the second place (§§ 12 to 18) we studied the instincts relating to the persistence of the species to which the individual belongs; instincts which have a biological significance quite different from that of the class of instincts first considered. In the third place (§ 19 to end) we studied those instincts which relate to the persistence of social groups of individual organisms; a class of instincts which is of great interest, because the impulses which relate to these instincts, the ethical impulses, are constantly brought into prominence in our conscious life. These instincts, we perceived, have a biological significance quite diverse from that of the individualistic instincts first studied, and from that of the instincts of the second class which relate to persistence of species.

In the sixth chapter we made an attempt to discover the relation between these three groups into which we had found our instincts could naturally be separated.

We noted the evidence (§ 2 ff.) which leads us to believe that the instincts of the second class, *viz.* those that

relate to the persistence of the species, have been built upon, or formed out of, the instincts of purely individualistic significance which make up the first class; the instincts of this second class having been developed after many of those of the first class were already well established in the low-grade organisms from which later organisms of higher type are descended.

We noted further that these instincts of the second class tend to be subordinated to the individualistic instincts of the first class wherever the conditions of life are in the least abnormal. And yet it appeared clear that on the whole the process must have been reversed, *i.e.* these instincts of the second class relating to reproduction would not have been formed, and after formation would not have persisted, unless they had on the whole subordinated to themselves the instincts of the first class which have individualistic significance; and we argued therefore that this subordination of class 1 to class 2 must have been important in the past, and is in all probability of importance to-day.

In like manner (§ 4 ff.) we noted the evidence that the instincts of the third class, *viz.* those that relate to the persistence of social groups, have been built upon, or formed out of, the individualistic instincts, as modified in relation to reproduction; the instincts of this third class having been developed after those of the first and second classes were well established in the organisms from which the highest forms of life are descended.

We noted further, however, that these individualistic instincts of the first class, as modified in relation to the instincts of the second class which relate to reproduction, tend to subordinate those of the third class which relate to social groups, wherever the conditions of life are at all abnormal. And yet here again it appeared clear that on

the whole this tendency must have been suppressed, that on the whole the process must have been reversed, *i.e.* these instincts of the third class would not have been formed, and if formed would not have persisted, unless they had on the whole subordinated to themselves the individualistic instincts of the first class as modified by those of the second class relating to reproduction; and we argued, therefore, that this subordination of classes 1 and 2 to class 3 must have been important in the past, and is in all probability of importance to-day.

Thus we saw in the second division of the chapter that the very existence of these groups of instincts of several orders implies as a fact the subordination of certain instincts to other instincts in relation to this order; or, in other words, implies a hierarchy of the instincts.

In the seventh chapter we examined the notion that social life is organic, and came to the conclusion that this conception is probably a valid one; but that the social organism is an organism of very low type indeed, weakly integrated, ever subject to disintegration and to radical variation.

With this thought in mind we considered in Chapter VIII. the nature of the social instincts upon which the higher morality depends, and concluded that variation from the typical order of subordination would appear, *i.e.* the subordination of the higher instincts to those of lower grades would be likely to occur, wherever the stimuli leading to a reversal of this order were forceful, and especially where the bonds of integration were weak and the complexity of the organism great. Both of these latter conditions we had already found to be inherent in the form of the social organism in relation to which our ethical instincts have been developed; and in the nature of our civilisation we noted that forcefulness of stimulation to

activities of a lower order would tend to be greatly emphasised in our life.

This emphasis we saw (§ 5) would be increased : first, by the fact that instincts tend to lose force in our conscious life, whilst rationalistic considerations, which might lead us to vary from higher instinctive leadings, do not show this tendency, and hence are not so likely to lose their efficiency in relation to our action ; second (§ 6), by the fact that individually acquired habits, or customs of momentary import handed down from one generation to another, tend to gain the external marks of instincts and to be mistaken for them ; third (§ 7), by the fact that what most men consider to be success in life is to a great extent gained by a reversal of the hierarchal order ; fourth (§ 8), by the fact that the imitative instinct, so greatly developed in us, tends to strengthen variations that happen to occur.

It appeared thus that the conditions of our civilisation tend on the whole to reverse nature's process ; tend, in other words, to subordinate the social instincts to those of individualistic import as modified in relation to reproduction ; and we concluded, inasmuch as the reverse process is apparently one which is necessary to the advance of the race over the lines in which Nature has thus far guided us, that therefore we might expect to find developed in us an influence which would result in the counteraction of this tendency ; might expect to find a governing instinct of a new and higher order, which would be regulative of reason in its relation to instinct ; which would tend to suppress the variant principle and to emphasise the force of instinctive appeal ; which would produce emphasis of instincts as a class, and subordinate processes of ratiocination to impulse ; which would lead to the strengthening of the social instincts, and to the subordination to them of these instincts of individualistic import as modified in relation to reproductive efficiency.

In the second division of the chapter we made search for the existence of such a Governing Instinct.

Reviewing the causes of the tendency to the subordination of the ethical impulses which we discussed in the first division of the chapter, we concluded (§§ 12 to 17) that all of the influences which lead to this subordination may be held in check, if in no other way, by the acquisition of habits of seclusion from the active world, or of voluntary temporary restraint from immediate reaction to the stimuli which affect us in this active world. We at once perceived that seclusion from the world and voluntary restraint from individualistic reaction are the very characteristics that we find dominant in the habits connected with the expression of the religious feelings; and this in turn suggested to us that in Religion we might find the Governing Instinct sought for.

In the ninth chapter we inquired whether religion can properly be considered to be an instinct, and noted that it has the general characteristics appearing in the higher instincts. We recalled further that if religion be an instinct, it like all the other instincts must have some special function to perform in the development of individual or racial life. That this function is the subordination of the sexual, the individualistic, and other elemental variant influences within us to the influences of social import, is the thesis which was naturally brought to mind, and which was reserved for special examination in Chapter X.

In § 7 to the end of the chapter we made an examination of the notion that the influences favouring this subordination come to us from without ourselves. We saw that the influences of the more fundamental impulses would probably be first attended to when they were forcible, and especially if they appeared in the form of what we now

know as hallucinations. We saw that the religious experience of religious leaders in the past has been widely connected with the occurrence of such hallucinations; and that when the hallucinations have not actually occurred, approximately the same mental conditions that accompany hallucination must have been experienced by the religious devotee. We noted furthermore that the conditions which favour the occurrence of hallucinations are just such conditions as would be likely to bring into prominence the more persistent impulses, *i.e.* those later-formed instincts of social import which are efficient because they influence us to trends of action rather than to forcible and immediate reactions only occasionally recurrent.

We noted that these hallucinations would be the more impressive because of the animistic notions which are natural to primitive people, and that hallucinatory voices and visions would naturally be attributed to influences from the spirit land without, and not to any power within the man who was affected by them.

The argument of Chapter X. should be fresh in the reader's mind, and we may therefore pass it over lightly in this present review. It will suffice to remind him that we there studied with some care the principal forms of religious expression, and that we noted in all cases that the actions expressive of this highest of all instincts cannot have persisted because of their inherent attractiveness; moreover, that they cannot have persisted because they have been of direct advantage to the masses of the race, for they must on the whole have been of disadvantage, directly to individuals, and hence indirectly to the race: it became evident, therefore, that they would not have persisted unless some special indirect benefits had been connected with them. But as we have seen that all persistent instincts

must in all probability serve some useful function in reference to development, we are compelled to assume the existence of such an indirect advantage in connection with the expression of this religious instinct, and after full illustration we came to the conclusion that our hypothesis was justified; that the function of the religious instinct in the highly developed racial life of man is the subordination of the individual variant principle, which appears in its latest elaboration in reason, to the racial principle, which in its latest elaboration gives us the ethical instincts;—the emphasis of a hierarchal order of instinct efficiency which Nature is endeavouring to impress upon our race.

II.—THE ESSENTIAL CHARACTERISTIC OF RELIGION

In what has preceded this, I have written with no desire to make thoroughgoing explanations, in conformity with the notions of modern science, of the religious experiences of the past and of those that influence us in our day. So far as such explanations are possible and desirable they have been presented more fully and more ably than I could hope to perform any similar work even if I wished to attempt it. I have referred to such explanations illustratively so far as they have seemed to aid us in answering the important questions which at once force themselves upon our notice, if we grant the instinctive nature of religion.

As the reader knows, I hold that the common-sense view which agrees to call religion instinctive is fundamentally correct. But common-sense does not grasp the implication that instincts of fundamental nature must almost certainly have some biological function of importance in the development of organic life: yet the biologist must insist upon this implication; for, as I have noted more than once, we are compelled to assume that with few exceptions instinct

must have a valuable function, and this for the reason that we cannot well conceive how any instinct can have arisen, can have become developed and elaborated, and can have persisted, unless it has such a special function.

Moreover, as we have already seen, even if we deny that religious activities are entitled to be called instinctive, nevertheless so persistent are religious habits in the race that they must almost surely be of biological advantage even if it be true that they would not occur without the influence of imitation and "tradition." They must almost certainly have some biological function: and surely the function above suggested as that connected with religious expression must be acknowledged to be of fundamental importance to our race.

In our complex life it is very unlikely that development to the attainment of a given end will appear clear, so obscured will it be by the co-ordinate development of other attainments to other ends. The development of the instinct for which we are looking is thus obscured, but not to my mind in any sense obliterated. Although Nature in forming this religious instinct may have built it up, so to speak, out of habits formed for other purposes, using them as they served her higher ends; still it may well be claimed, I think, that these habits have to a great extent persisted not because of the original values, but on account of their worth to the race as means of emphasising the subordination of the variant individual principle to the racial; of repressing the immediate response of instincts which are only of individualistic or sexual moment and compelling delay until those of more far-reaching importance can present themselves; of establishing within us that order of instinct emphasis which has proved most serviceable to our race in the past; of forcing upon us the habit of waiting for and subordinating ourselves to what is usually conceived of as the command

from a power higher than any recognised in our immediate natural surroundings; of enforcing the habit of listening to the "still small voice of conscience"; of subduing not only these distinctly recognised individualistic instincts, but also individual habits which may have become fastened in a people by imitation, or custom, or teaching, through a number of generations, yet temporarily in a biological sense.

Although such a governing instinct would doubtless appear early in germ, it would become most marked in a developed form in which it would include opposition to the higher elaborations of the variant principle when this latter appeared in ratiocination, which so insidiously works to subordinate racial leadings. And so, as we have seen, we find this religious instinct in its most developed form teaching us to subordinate Reason to Faith; this last term, as here used, surely meaning the dependence upon other forces than those we recognise as arising from our own reasoning personality; this dependence again involving reliance upon the instinctive forces within us.

Let us now recur once more to the thought so often reiterated that the religious customs we have been considering are under this hypothesis all tools, so to speak, which Nature has used to enforce restraint; for I wish to emphasise the fact that this restraint is of the very core and essence of religious functioning.¹

The very word "religion" was held by Cicero and others

¹ The reader will perceive that the habit of restraint from individualistic action in the region of instinct has its counterpart in purely intellectual fields in the habit of reflection, in which we hold rationalistic processes in check, suspending our judgment until we catch the force of thought elements which are the outcome of deep racial experience. These thought elements we call "intuitions," and they demand recognition, and guide the thought of the reflective man just as his conscience guides his action. Upon this point, however, which does not relate to the subject in hand, I cannot ask the reader to dwell.

to have come into use because of its relation to reflection and restraint, and although it is not probable that we can correctly trace the word to so direct an origin (for it was probably used in less developed form before men realised the meaning of this restraint), still Cicero's derivation is important as showing how long ago the connection between religious expression and restraint was noted.

The *γνῶθι σεαυτόν*, which was the foundation of religion as Socrates conceived it, had been long before his day taught as a precept by his religious predecessors. A late investigator tells us¹ that over the temple entrance at Delphi "this piece of counsel, *know thyself*, stood conspicuously engraven"; and it was at the first interpreted ethically. "Heraclitus, the earliest Greek philosopher whose remains contain any allusion to it," gave it this interpretation: "It behoves all men to know themselves and (? thereby) to exercise self-control."

The same author calls our attention to the fact that Plato, in the *Charmides*, makes Critias insist upon "the urgent necessity of self-knowledge as the essential feature or factor of self-control. 'This,' he says, 'is what the God at Delphi enjoins upon his worshippers in the words "know thyself; . . . different in form as the expressions—" have self-knowledge" and "have self-control"—are, still in substance they are identical.'"

Turning to modern times in which the nature of religion has received its fullest consideration, we note in this respect substantial agreement.

Following Wundt's² classification of theories we find the "autonomous theory," as expressed by Schleiermacher, making "a feeling of absolute dependence" the fundamental fact in religion; we find the "metaphysical theory," as expressed

¹ John I. Beare, *Mind*, N.S. xviii. p. 229.

² *Ethics*, vol. i. chap. ii.

by Hegel, defining religion as "the knowledge possessed by the finite mind of its nature as absolute mind"; we find the "ethical theory," as expressed by Kant, describing religion as "a knowledge of all our duties as divine commands." In all these definitions we find this common thought, viz. that religion consists in the suppression of our fallible wills to what we conceive of as a higher will. Much the same thing is signified by Martineau's definition: "Religion is belief in an everlasting God; that is, a Divine Mind and Will ruling the Universe, and holding moral relations with mankind."

Under my view what is here called the suppression of our will to a higher will, may be expressed in psychological terms as the restraint of individualistic impulses to racial ones; that such restraint has effect upon the moral character being of course granted. This restraint seems to me to be of the very essence of religion: the belief in the Deity as usually found being from the psychological point of view an attachment to, rather than of the essence of, the religious feeling; and this whether as metaphysicians we may be or may not be compelled to the belief in this Absolute Deity.

Professor Seeley tells us that "Religion in its elementary state is habitual and permanent admiration"; which is true so far as admiration implies, as it almost always does, a willingness to follow the wishes of the one admired. The God whose "voice" is felt to be heard in conscience, and who is conceived of as omnipotent, is obeyed, as He is admired, with awe.

Matthew Arnold tells us that "Religion is morality touched with Emotion." The word "emotion" is here evidently vaguely used to refer to the impulsive side of our nature, and Mr. Arnold's words when interpreted seem to me to express the truth that when our tendencies to the

right, to the moral life in its entirety, become impulsive, are guided by an instinct which governs all our various instincts, then, and not till then, have we felt the force of religion.

Professor Royce, in his *Religious Aspects of Philosophy*, tells us that "religious feeling" has to do (1) with an alteration of the moral code; which in terms of our contention means the birth within us, as the result of restraint, of a new ethical impulse, or the discovery of one that was hidden from our view; or, in the words of everyday life, the "conversion" of the man. It has to do (2) with an enthusiasm in action; and we have just seen how important under our hypothesis this is in the development of the higher social life. That it has to do finally (3) with a firmness of belief in the worth of the end in view is clearly implied in our conviction that the "voice" is a guide that we ought to follow.

If we agree to lay aside all matters open to debate, it seems to me that we are at least able to see pretty clearly through all the various and varying habits of religious expression this one characteristic, that those special activities which imply restraint of individualism are always the ones emphasised in the religious life.

In the earlier life of man this restraint was most effectively attained by voluntary temporary seclusion from companionship, by living apart for a time from the stimulations of the world. But we realise nowadays that the hermit life is full of peril, and that the hermit is subject to very special and very dangerous temptations; and furthermore, we notice that only very indirectly by his teaching can he aid in the remoulding of the world from whose activities he so separates himself. It is, indeed, evident that a much nobler result will be attained if, living in the midst of this stimulating environment, taking

part in the activities of his race, the habit of restraint can be so fostered that the happy possessor of this power of self-control may live a life of effective functioning amongst his fellows, and yet withal be guided constantly by the deeper impulses which speak to him from within; and it must be evident, indeed, to the reader who has followed the argument I have above made, that the great trend of religious activity has been in the direction of an emphasis of this restraint among the masses who form the active workers in the life of our race.

Finally, I would ask my reader to note a conclusion to which we are led by this trend of thought. It certainly appears that a man who thus lives a life of restraint, of listening for the voices within him, must be called a religious man in the very fullest meaning of the term, whether or not he belong to a recognised body in which religious customs are honoured; whether or not he be a member of any religious sect or church; whether or not he there gain habits of restraint through the direct absorption of dogmatic tenets. And equally true does it appear that the man who has not gained these habits of restraint of individualism, of listening for the voices of the higher instincts within him, of making righteousness as he conceives it the moving impulse of his nature,—that such a man has failed altogether to become religious, however much of profession he may make.

Now some reader may be led by this conclusion from our study to argue that religious customs as a whole are worthless; for he may hold that inasmuch as Nature often works in most indirect fashion, she has here allowed the formation of many habits of action that are really of no moment, or are even in a certain sense vicious, in connection with those of essential importance which would lead

to this restraint; and this apparently because she has been able to use them as the best, although indirect, means of gaining her ends; or it may be that she has allowed to remain in existence habits that can exert no harmful influence in connection with a development guided by other forces.

But I cannot agree that on this account we can properly hold religious habits to be valueless; for when the acknowledgment is made that Nature often does work by indirect means, we find ourselves unable to be over-confident in assertion as to the habits that may be without value in these higher processes; we discover ourselves uncertain which of those minor habits, which to us with our vaunted insight seem at times to be worthless, may without loss be cast off; we find it difficult to state what customs must necessarily be retained because their loss would involve danger.

For myself I think that there is seldom a man who is so strong in character that he can afford to disdain the aids to the enforcement of this restraint of life that are offered to him in the higher forms of worship. I believe there are few of us, if any, who will not be better men for sympathetic action with others like-minded with ourselves under the gentle yoke of the Christian Church.

On the other hand, I think there is a great body of deeply conscientious men outside of the Churches who are fundamentally religious—men who refuse to think and to call themselves religious because they object to specific dogmas taught by the Churches; calling themselves non-religious, as they would not do did they not fail to recognise that the true function of the religious instinct is the restraint of individualistic tendencies and the emphasis of broader racial activities.

III.—A CRITICISM

As I have said in the preface, I had originally intended to devote a separate division of this book to a study of the relation of religion to belief; but this I decided to abandon because I found it unnecessary to the completeness of the argument. I am the more ready to make this omission because I thus bring out very clearly the difference between my view and that of Mr. Benjamin Kidd, as expressed in his *Social Evolution*, a book which deals with some of the special problems we here discuss. Mr. Kidd's argument I believe to be weakened by many psychological and logical errors, while in the directions in which he and I agree I think little claim to originality could properly be made by either of us; the importance of the religious forces in the social life of man has been acknowledged long since by all scientific and philosophical writers of weight.

His presentation of the subject, however, has led some of those who have read the *Mind* articles, in which I have briefly presented this subject, to think that the views expressed by him are in line with those presented above; I therefore think it best to note here the differences between my conceptions and his. In stating his position I shall quote from his digest of his theory as published in the *Nineteenth Century* for 7th February 1895.

"In human evolution," he says, "we are concerned with a creature which possesses two associated characteristics not encountered anywhere else in life. The first characteristic is human reason; the other is the capacity of acting under its influence in concert with his fellows in social groups."

This statement seems to me to be inaccurate. What is fundamental in reason is found in all higher animal life; all the higher animals are surely in some measure capable of judgment, and it is exceedingly probable, as I have striven to show in what has preceded and shall explain more fully in later chapters, that the germ of reason is present wherever consciousness exists. That *human* reason is a very specially elaborated form of reason, and that its development has been very marked since the capacity of speech has been attained, cannot be questioned; but this fact does not warrant us in holding that reason, of a type that shows all the main essentials of human reason, is not encountered anywhere else amongst living beings than in man.

It is of course impossible to defend the thesis that "the capacity of acting in concert in social groups" is one that is possessed by man alone; our knowledge, *e.g.*, of the habits of

ants, of bees, of the herding of cattle and deer, and of the collection of wolves in packs, all effectively controvert such a view; it must therefore be that the claim is meant to refer to the capacity to act in concert in social groups *under the influence of reason*. But it seems to me that if it be true that human reason is no more than an elaboration of a capacity possessed by all the higher animals, then it is also true that man's capacity for acting rationally in social groups, whilst it may differ in degree, does not differ in kind from the capacity as seen in the higher animals.

Mr. Kidd holds further that *man is "subservient to a fundamental physiological law, which may be briefly defined as the law of retrogression"*; hence to progress he, like all other living creatures, must do so by a process *"of continuous rivalry, effort, and self-sacrifice."*

"Man's reason has given him power to outwit, and therefore to suspend this onerous cosmic process to which his progress is due, and which consists in continually resisting the law of retrogression."

It must be apparent that if, as our author holds, there be racial advantage in acting in accordance with the laws of progress through conflict, and if some special group of men decided "to suspend this onerous cosmic process," then evidently this special group would be at a disadvantage in the racial struggle, as compared with those who had not gained the "power to outwit" nature; and we should thus have a continuation of the "onerous cosmic process," under the well-recognised law of the survival of the fittest, through the persistence of the race that submitted itself to the laws which appear to be of racial advantage, and the suppression of the race that used its reason to outwit the "onerous process."

This argument of Mr. Kidd's implies that reason is distinctly antagonistic to progress; but, as has been already pointed out by more than one reviewer, this is not true; and indeed, as I shall presently argue, all of the advance of our race can be distinctly traced to reasoned effort. The most that can be said on this point I think is that what we know as reasoned out, and as instinctive actions, tend to exclude one another where they might appear in consciousness, at the same time, in relation to the same set of external stimuli. Reason, indeed, is itself racial, and must itself be emphasised by the very contest that progress implies; it surely, then, cannot be held that it stands in the opposition to instinct suggested by Mr. Kidd's argument, nor to the "progress" that has created instinct.

Mr. Kidd then proceeds to say that *"The central feature of*

human history" is "*the resulting conflict of two great natural tendencies, which has hitherto been without any satisfactory explanation either in science or philosophy.*" We may pass over this statement, in which the author seems to me to make an error of fact and to claim overmuch, and proceed to the next point which he makes thus: If man "*holds this world to be a mere sequence of materialistic cause and effect, and if he possesses the power to suspend the process or to escape its effects, it follows with almost the cogency of mathematical demonstration that his own reason can never supply him with any effective sanction for submitting to it.*"

Passing over the questions involved in the first and second phrases of this proposition, I wish to consider the statement that man's "own reason can never supply him with an effective sanction for submitting to" the process by which progress is brought about.

Mr. Kidd's position, under a strict interpretation of his words, implies that the religious teaching concerning a supernatural power gives us a sanction that is not rational. If this be taken as the correct interpretation of his view, then I consider that we have here to deal with a somewhat subtle, yet important, psychological confusion which altogether vitiates his argument. The question raised is whether we can have any such thing as a *sanction* which is not rational? I do not think it can be shown that such a thing is possible. The very notion of a sanction which is felt to be adequate involves a belief that this sanction itself makes reasonable that action of ours which is in accord with the promptings accompanying the sanction. The religious man will defend his action on the ground that he believes his God to have commanded him to do as he has done, either by direct promptings, or through inspiration of his prophets; and he will assure you that he considers this belief a sufficient reason for his action, and that he has not in any respect acted irrationally. In fact, the notion of an irrational sanction in this sense is evidently a contradiction in terms.

But there is another sense in which we may read Mr. Kidd's phrases. He may mean merely that in the case under consideration men act under a belief in supernatural command that they cannot now, and indeed will never be able to, bring into harmony with the results of reasoning processes, as applied to the data with which science and philosophy deal, and which, he assumes, necessarily force us to the tenets of egoistic hedonism.

Why it should be a matter of wonder that men in this case act in accord with a belief they cannot reason out, I do not see; for surely with most men this is the almost normal mode

of action. I know of no man indeed, however intelligent he may be, who can claim to be able to justify any very large proportion of his actions by rational deductions from the axioms or postulates of science; I think it impossible, however, to predict that we shall never be in position to make such justification of our acts, or of the beliefs that go with those acts.

This statement, moreover, involves the assumption that actions which have self-satisfaction as an end are alone rational, that all disinterested actions are inherently irrational; but this cannot be granted. As we shall presently see, we look upon those acts of ourselves or others as rational which, when viewed in retrospect, harmonise with the desire-impulse efficiency of the moment of retrospect; and if we hold, as I hold, that this desire-impulse efficiency in most cases is not determined by the notion of the self-satisfaction to be connected with the desired end, we cannot agree that the assumption above considered is a valid one.

Furthermore, it is to be noted that it is an exceedingly small proportion of the race who believe that egoistic hedonism is reasonable; moreover, this very general opposition of the race to egoistic hedonism, and the very view, supported by Mr. Kidd, that the law of survival precludes the continued persistence of such a doctrine in our race for any long period; both these facts, I say, should lead us without hesitation to acknowledge that there is probably some invalidity involved in the form of argument that leads these relatively few thinkers to consider the struggle of life irrational, or else that there is some hidden error in the premises upon which their conclusion is founded. I endeavour below to indicate the psychological grounds which in my opinion make it entirely impossible to accept the doctrine of egoistic hedonism.

It does not seem to me true that we keep up the struggle because of any sanction at all; we persist in it because we are so impelled by racial impulses. It is only when we question the rationality of our action that the beliefs to which Mr. Kidd refers are presented to mind as a sufficient warrant for the action we have taken.

The first point made by Mr. Kidd under the sixth heading of his argument is this. *Religious systems "constitute the subordinating factor in human evolution."* I have argued, on the contrary, that religious systems are the outcome of the expression of an instinct which leads to restraint of the individualistic instincts, and which therefore tends to effect the subordination of individual

variant to racial processes. The importance of this subordination Mr. Kidd has not overstated. But I hold that although the religious instinct tends to subordinate reason to instinct, it does not tend to suppress reason in any way. As I have shown in my argument above, the religious instinct tends to suppress reason only until the force of racial impulses can be felt; but as we shall presently see, when all these impulses have been finally given their full weight, no longer is reason to be considered subservient, it then becomes the noblest instrument at our command in our effort to place ourselves in harmony with the development of the Universe in which we exist, and this by enabling us to make those individual variations which Nature may use in building up a race better fitted than ours to live in harmony with our environment.

Mr. Kidd holds further that it is *the function of religious systems "to supply the ultimate sanction for that effort and sacrifice necessary to the continuance of the process of evolution proceeding in society."*

I, on the other hand, hold that the function of the religious instinct is the subordination of the individual to the racial processes by means of restraint of the former; that the supplying of a sanction is only an associated incident, so to speak; that indeed no sanction at all is needed for the effort and sacrifice, for a society that did not follow these restraining impulses would certainly suffer loss in the struggle for supremacy; that this sanction is not the cause of, although it is the very usual accompaniment of, the expressions of this religious instinct. That this is true becomes evident when we consider how radically the conception of the nature of this supernatural sanction has altered during historic times, and how greatly it differs amongst peoples in our own day; and this without marked change in the influence of religion.

Mr. Kidd's conclusion is this: "*In the first place we have found in religion the characteristic feature of human evolution. In the second place we have found in religion its essential element, namely, the ultra-rational sanction it prescribes for conduct.*"

I have said so much concerning the importance of the religious instinct in the development of our race that the reader will realise that I do not differ materially from Mr. Kidd in reference to the former of these two statements; but the latter is opposed to my view. I do not believe that the essential element in religion is the sanction it prescribes for conduct; that sanction I believe indeed to be often co-ordinate with its occurrence, but not to be the cause of the conduct, nor indeed to be of the essence of the religious experience. It has become part of our

religious life because the actions to which it has become attached in the course of development do themselves involve restraint.

The essence of religious activities, as I have argued at length, seems to me to consist in their emphasis of restraint of the forceful individualistic, and other less persistent tendencies within us, until such time as the more persistent though less forceful tendencies can become effective.

I have endeavoured in what I have said above to make clear the differences between Mr. Kidd's conceptions and my own. He has emphasised the racial nature of the religious activities, and the suppression of the individualistic to the racial instincts which religion enforces; but it seems to me that he has missed the significance of religious expression, and has mistaken a circumstance for the essential nature of that force in our lives which we both agree to be a most important factor in the development of our race.

PART III
CONCERNING IMPULSE

CHAPTER XIII

THE NATURE OF IMPULSE

§ 1. "EVERY instinct is an impulse." With these words Professor James¹ opens his serious consideration of the nature of instinct, to which the twenty-fourth chapter of his valuable *Psychology* is devoted.

This statement was exactly adapted to the readers to whom he appealed in the magazine article in which it originally appeared. Professor James has been able, as no other English writer has, to present exceedingly complex psychological problems in so intelligible a manner that even those who are not initiated into the mysteries of his science find little difficulty in grasping the main drift of his argument. But it is perhaps necessary in connection with such presentation that accuracy should occasionally be sacrificed to terseness of phrase—to expressions which will remain in the mind of the reader. However this may be, it surely cannot be held to be strictly accurate to say that "every instinct is an impulse"; although it may be said in favour of this statement that it serves well to impress emphatically upon the reader the indissoluble connection between instinct and impulse, even if it does not explain this relation in an adequate manner.

The inaccuracy of the statement above alluded to becomes clear at once when we consider that "instincts,"

¹ *Psychology*, vol. ii. 385.

correctly speaking, refer to capacities in ourselves, or in the animals we observe when we consider them objectively; while "impulses," psychologically speaking, refer to certain *mental states* which we experience, or judge from analogy that other men or animals experience. We agree that the animal has an instinct which leads it to swallow liquids which in one way or another get into its mouth; and we judge this from objective evidence, whether we see the animal swallow or not. So we speak of our own instincts.

But judging also from our own experience, the question whether the animal has an *impulse* to swallow is quite another matter, one which is determined by the presence in its mouth of the liquid which it has not yet swallowed; in other words, by the presence of stimuli to the actions expressive of the instinct, which actions have not yet been carried out.

Thus we speak of ourselves as having self-protective instincts, and when we see a man aim a quick blow at an enemy suddenly appearing before him we say that the actions involved express the instinct or capacity within him; but it is when we see him restrain this action under temptation that we properly say he must have had an impulse which would have led him to strike his enemy had it not been restrained in one way or another; and this we judge from our own psychic experience.

The truth is that every instinct is *not* an impulse. On the other hand, every impulse does involve the existence of an instinct pure and simple, or one which has been more or less modified by life experience. Every instinct also implies the possibility of the appearance of an impulse, provided the conditions of stimulation appropriate to the expression of the instinct are realised, *yet under certain forms which restrict this expression.*

§ 2. Impulses, then, in a psychological sense, are mental phases which, when we take an objective view, we always find to be determined by the inhibition of instinct actions, as these are more or less modified by experience; which instinct actions have been stimulated by the presence of the conditions that might normally call them out, conditions however which, for one reason or another, are not at once realised. We act instinctively in a thousand different ways during all our life without paying any attention to the acts; but some day, when something inhibits our instinct actions, then we have a disturbance of our mental life, which in complex cases produces what we designate as an *impulse* which we feel tends to compel us to act in accord with our instinct.

It seems to me that this cannot be questioned. We all agree that when we say we act "impulsively," using the word without accuracy, we refer to the fact that we act without forethought, without consideration of the end which will be reached; that we so act for the reason that we have received certain stimuli to action which work themselves out because there exist within us certain co-ordinated neural structures which have been inherited and to some extent modified during our life experience; but it is the existence within us of these inherited neural structures that determines the existence of instincts in us, and it is apparent that the word "impulsively" is used inaccurately in such cases as the equivalent of the word "instinctively."

We say that we act "impulsively" usually when we are speaking after the fact, whilst in truth we would much better say that we acted instinctively; for in a great mass of such cases the effect upon consciousness consists solely in the "instinct feelings" coincident with the "instinct actions." But we do have a distinct disturbance of consciousness, quite different from these "instinct feelings," when the tendency

to realise the instinct action is inhibited, and it is that disturbance to which we refer when in psychology we speak of *impulse*.

Professor Lloyd Morgan¹ says, in objection to this usage of mine, "the impulsive tendency is indeed emphasised and augmented; but to say that it is produced by the inhibition appears to be an overstatement of the case." But if I understand him aright, Professor Morgan is here speaking, not of the subjective fact of the disturbance of consciousness to which psychologists refer as *impulse*, and which I am discussing, but to the *tendency to reaction* which is an objective fact, pure and simple; consequently his objection appears to me to be irrelevant.

The inhibition which produces the impulse may be simple, or it may be of a very complex nature and difficult to appreciate as such; it may be caused by positive opposition, or by the fact that "the stimulus must generate a certain amount of organic instability before the organic mechanism will fall to the response," a condition to which Professor Morgan refers in *Habit and Instinct*, p. 139; but in no case does the impulse appear in consciousness except as the result of an obstruction to the realisation of certain activities which are determined by the existence within us of co-ordinated neural structures.

§ 3. I think the true nature of impulse may be made clearer if we study the matter from another point of view, making a plunge into the depths of psychology, and to this study the remainder of this chapter will be given. I shall here rehearse, and amplify, much that I have already said in an appendix to Chapter V. of my *Pain, Pleasure and Aesthetics*, where the subject was discussed in its algedonic aspects.

¹ *Habit and Instinct*, p. 142. Cf. Chap. IV. § 4 above.

It often happens that we gain a better view of an obscure mental state by the study of some simple state to which it is evidently related. Cravings, desires, impulses are all mental states which are bound together most closely, cravings being apparently the simplest of the three states. I think if we study the nature of desire and of impulse in connection with the nature of craving that we find a distinct corroboration of our view in relation to impulse.

Physiological consideration has taught us that cravings, in most cases, may be produced by the mere deprivation of a stimulus to activity which is usually somewhat rhythmically recurrent. The stimulation to activity in the digestive organs and their related parts which is given as the result of the process of eating, if not recurrent in its normal rhythm, gives us the craving of hunger. The healthy man must have his meals with some regularity or he is thoroughly uncomfortable. The psychic elements distinguishable in these cravings consist of broad systemic pains, coupled with what is known as a sense of uneasiness: this sense of uneasiness may be supposed to be the psychic counterpart of the tendencies of accumulated yet restricted energy to work itself off in channels adjacent to those which, but for the failure of stimulus, would normally come into action; for such accumulation of energy is necessitated by the fact that rhythmical processes of organic nutrition come to correspond with rhythmical organic activities.

That the physiological basis of the cravings and their psychic elements are correctly described above becomes clearer when we consider the peculiar nature of certain special cravings which appear without unusually recurrent but restricted stimulus, such cravings, for example, as those which arise with the approach of the age of puberty. In such cases it is apparent that systemic development, determined by heredity, brings capacity in combinations of organs

which fail to act only because they await an unexperienced stimulus. Physically we have here the same conditions of accumulation of energy and of restriction as in the cases described in the preceding paragraph, and psychically we have the same broad systemic pain and the same uneasiness.

§ 4. Desire contains the craving elements in all cases; that is, it contains broad systemic pain and the uneasiness which always goes with it. That it contains more than this also seems clear to me. Nevertheless, it must be agreed that usage brings the two states very close together. Although I know of no theoretical writer who would use the word "desire" to designate the sexual cravings as above described, still no less well known an author than Herbert Spencer defines desire in terms which could be employed to indicate the more usual forms of craving which, objectively viewed, are traceable to a stimulus that for a time has not appeared in its normal rhythm. In his *Principles of Psychology* (vol. i. p. 125) he says: "Desires are ideal feelings which arise when the real feelings to which they correspond have not been experienced for some time." I think we shall find ample reason below for the rejection of this definition as a description of desire. To the cravings, to which his definition applies well, must be added something more before we obtain the desires.

That desires and cravings are not very distinctly differentiated by those unaccustomed to introspection is explicable when we consider that mental states in which the pain of restriction is predominant, and which oftenest arise as, and are known as, mere blind cravings, at times arise also as the result of the appearance in the mind of the image of an unrealised object which would, if realised, result in relief of the painful uneasiness; they are then in my view real desires, as will presently appear. Thus the craving of

hunger may, and usually does, arise without any thought of food, but it may also arise as the result of seeing others taking a meal. That the craving may appear without the existence of the more complex conditions last referred to shows that these latter are not of its essence. No clear thought of an object is necessary to the production of a craving.

Again, desires in a large proportion of cases arise upon the presentation to sense perception of objects to which the activities which are restricted normally relate, and the same is also in not a few cases true of cravings; but while both desires and cravings are thus frequently initiated by the perception of objects, this objective stimulation gives us no reason for failing to distinguish between them; for cravings are not determined by such presentation of objects.

Hunger may be initiated by the sight of food, but hunger also arises often without antecedent suggestion of edibles: the sexual cravings in their very beginning in the human race at least are clearly not initiated by any antecedent presentation of an appropriate objective stimulus.

The presentation of an object, on the other hand, does often produce a clear craving, which is differentiated from a desire by the lack of any idea of an object to be realised, in reflection this craving being also a state distinctly separated from the presentation of the object. With my mind on other things my attention is called to a beautiful horse: I see the horse and feel a craving—an indefinite painful uneasiness which is separated from the notion of the horse: but it is not a desire, nor does it become one, until to the craving is added the notion of the unrealised ownership of the horse, which, if realised, would result in the relief of the pain.

Enough has been said, I think, to bring out the distinction between craving and desire, and at the same time to

show why the words in common-speech usage occur not infrequently as interchangeable terms.

A *craving*, then, may be defined as *the psychosis of painful systemic obstruction, which we learn by experiment would be relieved by systemic activities, for which the organism is prepared.*

§ 5. There is another psychosis of painful obstruction which is closely allied with craving, but which is differentiated by the fact that reflection teaches us that relief lies in the direction of what we differentiate in consciousness as co-ordinated *motor* activities, for which the proper organs are prepared. The mere cravings are so usually at once connected in the mind with the image of the motor activities that it requires some introspective discrimination to note the distinction, and we in English have no word which has not the active motor connotation. *Trieb* in German more nearly indicates the simple state. "Blind impulse" seems the best combination of terms to convey our meaning.

A "*blind impulse*" therefore may be defined as *the psychosis of painful obstruction of systemic activities, which we learn by reflection would be relieved by motor functioning the stimulus to which is existent.* Of impulse proper we speak below after a further discussion of desire which may be helpful.

§ 6. Desire appears to be a complex which contains two elements, as follows:—

A. The painful psychosis of systemic obstruction, of effort by the system to force channels for the "pent-up stream of action" (Ward), *i.e.* to get round the restriction to the realisation; in other words, a *craving*; and

B. The persistent image of the realisation of an un-

realised objective idea. We learn by reflection that if this idea were realised the result would be relief of the desire pain, but neither this act of reflection nor its outcome is necessary to the desire.

A. That the psychosis of obstruction of activities is present in desire will probably not be questioned; it is shown by the fact that desires tend to "arise when the real feelings to which they correspond have not been experienced for some time" (to quote Mr. Spencer again), and that in other cases they arise after recognised restrictions. If this be true the stress of desire ought to be relieved by activities which are represented in connection with it, which is a generally acknowledged truth; or by the diversion of the obstructed energies into new channels—that is, by the rise into absorbing attention of other activities; this too accords with experience. As Mr. Spencer puts it, "Desires when ungratified become feebler and finally die away."

B. But, as I have already noted, the pain of restriction is not all of desire; were there nothing more, craving would then not be differentiated from it; to complete the desire there must be added the persistent image of the realisation of an unrealised objective idea. We must desire some object which is not real for us at the moment of desire, be this object a person or thing in the outer world, or such a vague thing as an unremembered name, or a condition of mind. If the object were realised this would bring the desire to an end and relieve its pain.

The importance of this point is grasped by many of the later German psychologists; but the Herbartian notion that each rise of an element in consciousness is a striving of a presentation against opposition has made the conception difficult to hold by those whom he has influenced; has made it hard to draw the line between a desire and the general

flow of consciousness, especially in expectation, which, to the Herbartian, would appear to be merely a marked case of the general striving for realisation.¹

One who does not accept this Herbartian notion of a sub-conscious contest meets with no difficulty in this direction. Any idea is an expectation if it has the future-time quality and the quality of realness; and it is distinctly differentiated from desire, as I have defined it above.

The realisation in the case of desire may refer to an image only, as when we desire the prosperity of our offspring; the realisation must be *for us*, and it must relate especially to a presentation to our consciousness, and not especially to a reaction of ours, which, as we shall presently see, is a characteristic of impulse.²

§ 7. Let us now turn to the consideration of impulse proper, which appears to be made up of two elements as follows:—

A. The psychosis of painful obstruction of systemic motor activities, *i.e.* a blind impulse (Trieb); and

B. The persistent image of the realisation of a distinctly motor activity, concerning which we judge in reflection that if the motor activity were realised, the result would be relief of the obstructive pain; but neither this act of judgment nor its outcome is necessary to the impulse.

That impulses have always the painfulness of repressed activity inherent in them, and always contain also the motor idea, is not questioned: it is of their essence that the unrealised idea shall relate to our own reactions upon our environment.

¹ Cf. Drobisch, especially *Emp. Psy.* § 143, quoted by Volkmann; also Volkmann, *Lehr. Psy.* ii. § 139; Lipps, *Grund. d. Seelenlebens*, p. 610.

² Cf. Bradley, *Mind*, xlix. p. 21.

Impulses do not become emphatic in consciousness except where there is distinct opposition, the uneasiness in all such cases being painful.

If the restriction which determines the impulse be broken down, and the instinctive tendencies as modified by experience work themselves out, we have the psychoses which I have called "instinct feelings," which, as we have already seen, under certain conditions of co-ordination and fixity are called emotions.

§ 8. We have then—

- | | |
|--------------------------|------------|
| 1. Craving | 2. Desire |
| 3. Trieb (Blind Impulse) | 4. Impulse |

in which 2 and 4 are clearer intellectually than 1 and 3.

1 and 2 relate to effects upon us, while 3 and 4 relate to effects by us upon our environment.

As motor activities are the last in the physical series which begins with stimulation, we should expect to find "blind impulse" bound to, but most often appearing as subsequent to, craving. This accords with my own introspection. While craving may appear alone, it tends to run into *trieb*; on the other hand, *trieb* often appears alone, without bringing a craving into consciousness, the restriction in the region of stimulation to the motor activities not having been effective to emphasise the craving, while the restriction to the motor reaction itself is emphatic.

Desire and impulse we should expect to find similarly related. Desire should naturally lead to impulse, and should most often be found bound to it, although we should be able to note cases of desire where impulse seems to be wanting or only incipient. On the other hand, we should expect to find impulse appearing quite distinct from desire, and not calling desire into being immediately. I may feel

desire for some horse I see, and in what appears to be one and the same mental state find myself impelled to jump on his back and take a ride; or I may feel the impulse to jump on his back without experiencing any desire for the animal.

It seems to me clear that impulse is easily held apart from desire, although ordinarily the two states are not considered separable. A formidable array of authorities indeed take the position that impulse is of the very essence of desire: for instance J. S. Mill,¹ Lewes,² Volkmann,³ Horwicz,⁴ Wundt,⁵ Hoffding,⁶ Sully.⁷ Still I am convinced that there are cases of desire which have little or nothing of impulse in them: such cases as the "desire to know," the "desire to recollect," for instance. These seem to me to be clear cases of desire, but no impulse element in such mental states is appreciable.

It seems proper, then, to exclude impulse from the essence of desire, although on the other hand we must acknowledge that desire can seldom occur without calling out impulsive tendencies.

We here find explanation of another fact of interest, namely, that so many thinkers, and common folk in general, speak of desires as emotional. The explanation in this case seems to be bound up with the fact that emotions are complex impulsive phenomena. As we have just seen, impulses are the most likely outcome of desires, and are therefore most often held together with desire in reflection.

Desire is often identified with the desire state of love, *i.e.* with longing; and thus is considered to be the opposite

¹ J. S. Mill's edition of *James Mill's Analysis*, chap. xxiv. footnote 66.

² *Problems*, 3rd series, p. 248.

³ *Lehrbuch d. Psy.*, ii. p. 437.

⁴ *Psy. Analysen*, iii. chap. iv.

⁵ *Phil. Studien*, vi. iii. p. 373 ff.

⁶ *Outlines of Ps.* chap. vi. 2 c.

⁷ *Human Mind*, ii. p. 180.

of aversion. . Longing and aversion are distinctly related to instinctive emotional reactions, the striving towards and the striving away from objects, which in a further development give us love and hate. But desire which is not itself impulsive must be distinctly differentiated from longing and aversion, which are emotional and hence impulsive in their nature.

If our view be correct, therefore, we should not be surprised, rather should we expect to find the desire phase very closely related with the distinct emotions.

§ 9. It may be well to explain the nature of desire and impulse in terms of the modern doctrine of apperception, as I hold it, which seems to be demanded by the prominence given to this doctrine by Mr. Stout in his *Analytic Psychology*, which will probably establish the trend of psychological thought for a long time in the future. I take this opportunity to state my obligations to Mr. Stout for his very able elucidation of this doctrine, although I would not of course hold him responsible for the expression of it in what follows.

An idea may appear in mind as real in a certain apperceptive system: I may perceive an object approaching me; it may be part and parcel of my present apperceptive system, and in it may appear, for instance, a man as a relatively stable object, as real, as a real man. But presently a new apperceptive system develops out of the first, the new system being determined by recognition of the features and the postures and the environment of that man. This system also contains as a new element the idea which we call this man's name. But this man's name is not recalled, and just so far the total of qualities in this new apperceptive system that involves the notion of that thoroughly familiar man fails to be wholly realised; the

other qualities, however, which make him real-for me are presented in that form of relative stability which constitutes reality.

Here the idea of that man's name as part of the new apperceptive system presents itself to my mind, but it is not realised, although the fact that it may be realisable is marked by the very failure in the perfection of the realisation; by the blank in the picture, so to speak.

The idea of that man's name is a persistent idea, real in some apperceptive system indeed, but for all that unrealised in the new apperceptive system which is forcing itself upon my mind. We have the painfulness of a craving due to the restriction to the unfolding of the new apperceptive system, and also an idea of activities, not distinctly motor, felt to be unrealised, yet realisable. In and by the existence of the combination we have the mental state which we call desire: the desire in this case for the man's name.

§ 10. Similarly in reference to impulse. The newly arising apperceptive system may hold as part of its totality the idea of an action of my own, an idea which presents itself to my mind as not realised, although the fact that it may be realisable is marked by the very failure in the perfection of the realisation of the new apperceptive system, which would be totally realised were the action performed. Here we have the painfulness of a craving due to a restriction of the unfolding of the new apperceptive system, and also an idea of distinctly motor activities felt to be unrealised yet realisable. In and by the existence of this combination we have the mental state which we call impulse: the impulse to perform an act.

§ 11. Now the fact that, where impulses are concerned, the motor idea although unrealised is felt to be realisable;

the fact that the outcome in motor activities is acknowledged to be natural; the fact that the mere removal of restraint results in the occurrence of the appropriate activities; the fact that these activities are "spontaneous," as we say, and are not felt to be due to our own effort or guidance; all these facts of observation and introspection agree with the views we have already presented, and confirm the notion that impulses are due to organic trends which imply their dependence upon co-ordinated neural structures existing within us, and which must be due to forms inherited from our ancestors, or to modifications of these forms due to life experience. All this goes to confirm our statement that impulses are due to the inhibition of instincts or of those modifications of instincts, those pseudo-instincts, which we call acquired habits.

The statement of the nature of desire and impulse made above may seem to some to be little more than an attempt at definition, but I think that the development of my view in succeeding chapters will show that the statement accords with the facts of experience.

§ 12. In what has preceded this the reader who has followed my argument with approval must have become convinced that desire and impulse are not identifiable, for desire may occur with no trace of impulse about it; the apperceptive system which involves the desire may be displaced by a new system before the impulse is developed. Impulse also may occur with no trace of desire, there having been no effective opposition to the realisation of the non-motor stimulating idea. We must agree, however, that the distinction, although a necessary one, is one which is produced by the natural division of our complex life of mental activity into receptive and reactive parts, and not because of any fundamental difference in the form of the psychoses involved.

The content of the impulse is in large measure determined by the content of the desire if it appear, and in a large proportion of cases both desire and impulse do appear in mind; and then both appear as the accompaniments of a total state which has to do with our activity in relation to our environment.

In treating of this activity in relation to the world surrounding us, it would be strictly accurate to use the phrase "desire-impulse." This, however, would be most cumbersome, and in the chapters to follow I shall use simply the word "impulse" to express my meaning, with the understanding that so far as desire arises in connection with the impulse it is included in our conception. This seems perfectly proper, as desire when it appears without impulse is not provocative of action upon our environment, the development of the series being then lacking.

The reader will comprehend the necessity of this explanatory statement when he comes to study the nature of moral codes in the next chapter, for morality has to do not only with the relation between impulses, but also with the relation between desires where they occur without impulses: for persistent encouragement of desires which do not at the time lead to impulses, may eventually lead to the development of the impulses in connection with the appearance of the desires; and, on the other hand, restrictions of the desires may overcome all possibility of the appearance of the appropriate impulses.

CHAPTER XIV

THE HIERARCHY OF IMPULSES

I.—THE NATURE OF MORAL CODES

I

§ 1. IN consideration of the explanations made in the previous chapter, I think we may now assume that our impulses are mental states which are determined by the inhibition of instinctive tendencies, as these have been more or less modified by the experience of life.

I would now ask the reader to recall the discussions of Chapter VI., where, at the close of Division II., we were led to the conclusion that the instinct actions expressive of the instincts included within a given group taken as a whole, and of the instincts as compared severally, must vary in perfection of co-ordination in proportion as they have existed long, and have been often brought into activity, in the life-history of our ancestors; that where instincts have been formed approximately at the same period in that past, the frequency with which they have been called into action will determine the thoroughness of this co-ordination; that thus in different individuals we must expect to discern differences in quickness of response in connection with instinctive reactions of different types; or, in other words, that the hierarchy of the instincts within the great groups, and to a less extent of the groups themselves, will neces-

sarily differ in different races and in different individuals of the same race.

If then it be true, as we have concluded, that impulses correspond to instincts as modified by experience, necessarily a closely correspondent statement to that made in reference to instinct may be made in reference to impulse.

The impulses which are determined by the inhibition of modified instinct actions must vary in efficiency as these instinct actions vary in perfection of co-ordination. The efficiency of impulses, therefore, must vary in proportion as the instincts with which they are related have existed long in the history of our race, and in proportion as they have been often brought into activity in the lives of our ancestors, or especially in the course of our own personal experience. Where certain instincts which are efficient in producing certain impulses have been formed approximately at the same period in the past, the frequency with which they have been called into action in that past, but especially in our own experience, will determine at any time, for any individual, the relative efficiency of the corresponding impulses; so that in different individuals we must expect to discover differences of what for the sake of brevity we shall speak of as impulse efficiency.

In other words, we should expect to find in ourselves first a broad hierarchy of impulse efficiencies corresponding with the order of subordination of the great groups of instincts which we have above considered; and also a less definite hierarchy of impulse efficiencies in correspondence with the impulses within these groups. And in different individuals we should expect to find differences in this hierarchy of impulse efficiencies both in relation to the great groups, and especially in relation to the impulses determined by the instincts within these great groups.

Concerning this point I think I need make no further

argument, but taking it for granted I shall proceed to consider some of the implications necessarily connected with it. Before doing so, however, I must ask the reader to note that the word "efficiency" is used here to express a fact, and is not intended to serve as an explanatory term. In speaking of the greater or less efficiency of two impulses we express the fact that where two impulses which would lead us to diverse ends present themselves in consciousness, one shows itself to be relatively efficient by leading to its appropriate expressive acts, while the other shows itself relatively inefficient by failure to express itself. To consider here what may be the basis of this efficiency would be apart from our present inquiry.

It cannot be doubted, as I have said above, that instincts have been formed in our progenitors at different eras of our racial existence, and it is a generally accepted doctrine that these instincts appear in our individual life in a serial order corresponding in general to the order in which they have been acquired in the racial life of our progenitors. This fact no one will question when he considers how clear it is that different instincts make their first appearance in us at different periods in our life-history; some are "connate," others are "deferred," a fact which has been sufficiently dwelt upon in what has already been written, and which therefore requires no illustration here.

But it is well to ask the reader to note that the fact just stated carries with it the implication that in the very nature of man's development, the relative efficiency of diverse impulses will vary at different moments of his life. In childhood the instincts relating to the demands for sustenance and for self-protection evidently overmaster those sexual and social instincts which are at most only beginning to appear. In early manhood the sexual instincts evidently play a much more important rôle, and often

entirely overmaster the instincts which relate to sustenance and to self-protection which a few years before held complete supremacy. In like manner in later years the fully developed man finds his social instincts gaining an efficiency in reference to the sexual instincts, and in reference to those relating to sustenance; which efficiency is entirely different from that observed in his early manhood. These well-recognised examples will serve to illustrate a fact which obtains with reference to all our instincts, and which must therefore obtain also with reference to all the impulses which are determined by the inhibition of these instincts.

Moreover, quite apart from the nature of the inherited mode of development which we have thus far been considering, the experience and habits of man's life after birth tend to enforce certain instincts and to dwarf others in a manner to be discussed more fully later; and this considered in connection with what we have said before, makes it appear all the more certain that the relative efficiency of diverse impulses will vary at different moments of man's life.

Of the relativity of the impulse series in the individual life which we are thus forced to consider, I shall not speak here; I reserve the treatment of that subject for the second division of this chapter. I wish here to study some one moment in a man's life in which the order of impulse efficiencies, as determined by the processes inherent in development or by life experience, cannot be supposed to alter; I would analyse the nature of a man's impulse experience at such a special moment.

§ 2. From what has been said above we are evidently forced to acknowledge that at such a chosen moment in a man's life there exists within him a certain definite serial

order of impulse efficiencies. To make clear my meaning let us make use of a symbolic series.

At this present moment I am capable of exhibiting an indefinite number of complex instinct actions more or less definite and specific, determined by an indefinite number of stimuli correspondingly varied and more or less definite and specific. For the sake of simplicity let us take out of this indefinite number a limited number for study, let us say five; and let us agree that at this moment stimuli S^1 , S^2 , S^3 , S^4 , S^5 will produce in me respectively "instinct actions" I_α , I_β , I_γ , I_δ , I_ϵ , and that correspondent to these, whenever they occur, I shall experience "instinct feelings" F_α , F_β , F_γ , F_δ , F_ϵ .

This supposes that there is no obstruction to the respective reactions. But if in each case there be an inhibition of the reaction to the stimulus which presents itself in consciousness, then I shall have the mental states known as *impulses* correspondent to each of these possible instinct actions; and these impulses we may symbolise by the letters A, B, C, D, E.

This set of possible impulses, moreover, may in every case be arranged in a series A, B, C, D, E of such nature that any one impulse is more efficient than any one following it in the series; so that if a stimulus S^6 , for instance, act upon me in such manner as to induce in me both the instinct actions I_β and I_δ , which are incompatible with, and which momentarily inhibit, each other; then while the inhibition is maintained I shall experience impulses B and D, but B will finally prevail; or if in like manner stimulus S^7 arouse the incompatible impulses A and E, A will finally prevail.

§ 3. It is the impulse series of a definite order of efficiencies at any moment, it seems to me, which when recalled

by revival at the successive moment, gives me my Individual Ethical Standard of the Moment. When an objective occurrence arouses two opposed impulses, then the existence of this standard becomes apparent.

In ordinary cases of action, after such opposition of instincts, the more efficient impulse prevails without my attention being attracted to the opposition that has obtained.

If the opposition leads to such hesitation that I hold in consciousness the two opposed actions to which the opposed impulses would lead, I then recognise consciously that there are two opposed impulses, that one is more efficient than the other, and that I am acting out the more efficient impulse.

I also note that in certain cases the balance of efficiencies is very even, and that it is an open question for a time which way the balance will fall; and then I experience suddenly the emphasis of one of these doubtful impulses by influences which I cannot clearly grasp in attention, but which I realise to arise from within my field of inattention, from that part of consciousness which makes up my ego-hood;¹ and then it is that I feel that I myself threw the balance in one direction rather than the other; in other words, I *will* which impulse I shall follow.

Of the nature and limitations of the act of willing I shall not stop to speak, for I am concerned here to describe the relations between the impulses which are acted upon in willing rather than the act of will itself. But I would ask my reader to note that the impulse series which, as I

¹ For a detailed discussion of this doctrine the reader is referred to the division of Chapter II. on "Parallelism." I may say here, however, that there can be no doubt that our ego of experience is of this field of inattention; and further that I find myself unable to discover any part of this field of inattention that is not part of this ego, that can be cut out of it without mutilating this ego. The ego and the field of inattention, therefore, seem to me to be identical.

have said, gives us the Individual Ethical Standard of the Moment, is revivable, and only because it is revivable does this ethical standard exist; for certain parts of this impulse series are brought into consciousness in relation to any remembered action of our own in response to a definite stimulus, or in relation to the action of a fellow-man whom we judge to have been subjected to this definite stimulus.

When this action of our neighbour, as recalled without any time for consideration or reflection, fits in with that part of our impulse series of the moment which is aroused, when it accords with our Individual Ethical Standard of the Moment, then we feel no sense of opposition, and if we are called upon to remark upon the subject we say that the act of our neighbour of a moment ago was right. If, on the other hand, the remembered action of our neighbour of a moment ago fails to fit in with this part of the impulse series of the present moment, fails to accord with our Individual Standard of the Moment, then we feel a shock, we judge our neighbour to be wrong in his action.

If I am correct, we ourselves never act contrary to this standard of the moment, and never condemn ourselves in this moment; we do not condemn ourselves unless we give time to reflection in a manner to be described below.

The reader will have noticed a certain correspondence with, and yet a divergence from, the views of Dr. Martineau in what has thus far been written. I refer to these views in a later paragraph.

§ 4. Thus far I have been speaking only of my own experience, or of the experience of some one individual man; and of the impulse series which he finds within him at some special chosen moment. But now I wish to call attention to certain considerations which will lead us to see that there is very little chance that for any two men the order of the

series of impulse efficiencies at any such chosen moment can be the same.

In order to show this we may refer again to the special impulse series of the moment which we have been considering, my own impulse series if you will. It will appear evident to the reader, as soon as I mention it, that this impulse series to which I am subject at this moment is not the series that would affect me if I had just sprung into existence full grown, and yet formed in accordance with the laws of development through heredity. I would clearly be a very different man if the varied influences from the variously integrated systems which have united to bring me into being had alone acted, and had I had no experience of the activities of life.

The influences inherited from the organic life of my progenitors, had they alone acted upon me, might have produced in me at this moment an impulse series which may be represented by the letters A, E, B, D, C, a series which contains the same impulses but in which the efficiency of the several impulses differs materially from that found in the series which I note within me at this moment, and which I have symbolised above under the form A, B, C, D, E.

The difference between the series A, B, C, D, E, which I now know, and the series A, E, B, D, C, which I would have known had I had no experience of life, is due to the fact that the complex stimuli from my ever-changing environment have varied as to quality or intensity from those forms to which I, through inheritance, was exactly fitted to answer. Thus, referring to my inherited impulse series, A, E, B, D, C, we may suppose that the stimulus to the instinct action which determined impulse E has for some reason not often reached me, and that the stimuli to the instinct actions determining the impulses B and D have much oftener reached me, and that the stimulus to the instinct

action determining the impulse C has been still more often experienced, so that I_β and I_δ ¹ have gained tendencies to promptness and strength of reaction which will at this moment give impulses B and D greater efficiency than E, and that I_γ for similar reasons has gained the same tendencies to a degree which gives impulse C an efficiency greater than E and D, but less than B; so that instead of the natural order A, E, B, D, C, due to inheritance, I experience at this moment, as I know, the order A, B, C, D, E.

Now it will be evident to the reader in the first place that there is very little chance that any other individual is born with exactly the same influences bearing upon him from his progenitors as bear upon me, so that there is very little chance that in any other person the natural order of the impulse series if determined only by inheritance would have been A, E, B, D, C, as it would have been with me; rather would it be more likely to have varied from mine, taking, let us say, the form A, E, B, C, D.

Moreover, there is scarcely any chance that another individual's experience in life can have been the same as mine; very little chance that exercise has enforced the same set of impulses in the same relation to other impulses; very little chance, therefore, that any other man's order of impulse efficiencies of this moment has been modified exactly as mine has been, and that for any one else it is representable by the series A, B, C, D, E, as mine is: rather is there great chance that it varies from mine, taking in another man, let us say, the form A, C, B, D, E.

But if the order of impulse emphasis in the series of the moment is altered by inheritance, and by previous experience during life, it is altered also by the nature of the stimulus; and it is to be noted that a stimulus S which reaches me, whose order of impulse efficiency is A, B, C, D, E,

¹ See symbols on p. 361.

if it also reach my neighbour, whose order of impulse efficiency is, say, A, C, B, D, E, then in effect it is for my neighbour no longer stimulus S, but quite another stimulus, viz. S^x, which tends to produce in him a reaction quite different from the reaction that S would produce in me.

The order of impulse emphasis is also altered by the strength or intensity of the stimulus: for a hypernormal intensity tends to produce a hypernormal and more immediate reaction; a subnormal intensity, a subnormal and less immediate reaction.

The order of impulse efficiencies of this moment, if determined, as we have argued, by inheritance, by experience, and by the nature of the stimulus, is also determined by what has been for me in the past the normal order and intensity of the stimuli which have reached me. It is highly improbable that that exact order and intensity of stimulus of the past reaches me at this moment when my order of impulse efficiency is A, B, C, D, E; in some respects it is probable that the relative intensity of the stimuli received is abnormal; hence at any other moment the order of impulse efficiencies is likely to be different from that of this moment because of the relative change of the intensity of the stimuli.

But now it is to be noted further that there is very little probability that any particular individual other than myself has at this moment exactly the same norm of stimulus leading to a given order of impulse efficiencies; and as little probability that the stimulus reaching this particular individual is normal for him, at this same moment, or abnormal in the same relations that appear in me.

§ 5. If the argument of the last section be valid, then it is clear, as I said in the opening paragraph of that section, that there is very little chance that for any two men at the

same moment the order of the series of impulse efficiencies can be exactly the same; and this carries with it the implication that there is small likelihood that any two men will at any given moment have exactly the same Individual Ethical Standard of the Moment.

But I have presented this argument in detail, because in picturing the influences which produce the difference of this order of impulse efficiencies between different individuals at the *same* moment, I have at the same time emphasised the fact that the same influences must produce similar differences of this order in a given individual at *different* moments.

For although in a given individual the effects of inheritance do not differ appreciably from moment to moment, yet that they do differ from moment to moment, although inappreciably, is shown in the fact that they differ perceptibly so soon as we compare the influences which are efficient at periods of life far separated from one another. This we have seen to be implied in the existence of "deferred" instincts, and in the accepted doctrine that we individuals develop capacities in an order comparable with the order in which these several capacities have been gained in the life-history of our progenitors through the dim past.

But if, on the one hand, differences of the order of impulse emphasis in an individual from moment to moment as caused by inheritance certainly exist, although they are not obvious, on the other hand such differences as would be caused by accumulation of experience, by change in the nature of, and by alteration in the intensity of, the stimulus, must also certainly exist. For at no two successive moments can our experience of life be the same; each moment adds its increment to this experience; and at no two successive moments is the nature, or the intensity, of the experience at all likely to be the same in the same individual.

In any individual, therefore, we must find at two

successive moments divergencies in the order of impulse emphasis due, of necessity, to differences of influence from inheritance and experience; and, in all probability, other divergencies due to differences in the nature and the intensity of the stimuli received at these successive moments.

II

§ 6. If all that has preceded this be true, if the order of the series of impulse emphasis be different at each special moment for each individual, and if different also for each individual in each successive moment; if also it be true that this order of the series of impulse emphasis determines our moral standard of the moment, then it is clear that for each man at each specific moment there is a special

(A) *Individual Ethical Standard of the Moment*

This individual standard of the moment is that to which we refer when we make off-hand judgments as to the propriety of certain actions in others. In its nature it must be exceedingly variable, for it is changed by each variation in our surroundings, by each alteration of associative train, by every difference in our physical condition.

This individual standard of the moment is quickly recognised to be unreliable, and we learn to appeal to a "higher" standard, as we call it, which is still individual, but which relates to a less variable field; this "higher" standard we shall now consider.

§ 7. As I have just said, no one finds himself for any length of time content with the dictates of his own off-hand

moral judgments, even if he acknowledge that they are his own, as we shall presently see he often does not.

When he views his deliberate acts in retrospect he finds that they do not harmonise with his standard at the time of retrospective thought; or, in terms of our psychological analysis, he discovers that his act in relation to two alternatives, as recalled, does not correspond with, or fit in with, the order of impulse efficiencies which is his own at the moment of retrospect.

At times, indeed, the divergence is so marked that he is startled and forced to give attention to this divergence, and then it is that he either feels that he has erred, or else makes effort to shift the responsibility from his shoulders. This shifting of responsibility he attempts to effect in a variety of ways. If he be schooled in the current thought of our half-educated people he is likely to repudiate his act altogether, is likely to ascribe it to a leading by the devil; or if he has given up belief in evil spirits he is wont to lay blame for the act upon Nature, complaining of the strength of the stimulus, the overwhelming nature of the temptation; or perhaps he falls back upon the effects of habit, or upon the nature of his organism over the formation of which he has had no control.

But whatever be his action in this respect, he is forced to acknowledge that this choice of impulses, made at the time of the now regretted act, clashes with the choice he would make in the moment of deliberation.

This, as I have said above, means that a man's order of impulse efficiencies after deliberation is different at times from that order of impulse efficiencies which prevails when deliberation is impossible; and when we consider the subject we at once perceive that, if our analysis be correct, this is exactly what we should expect to find to be the case.

For we have seen that, quite apart from idiosyncrasies

which must arise in consequence of inheritance from ancestors who have been at different stages of development at the time of mating, and which cannot affect the matter of consideration, each one's individual ethical standard of the moment is determined in its nature by at least four variables, viz. (1) the order of the rise of his instinct-born impulses, (2) the effect of his experience during life, (3) the nature of the stimulus, and (4) the intensity of the stimulus.

The first factor, viz. the order of the rise of his instinct-born impulses, may be passed over lightly, for changes in this order usually take place so slowly that they cannot effect an appreciable difference between the impulse series of the moment and the impulse series of reflection, except in those rather rare cases when some act of long ago is held in mind and compared with the impulse standard of later years; or in those other cases where a sudden "conversion" brings into prominence in a man's mind a new set of impulses.

The effect of life experience, however, is of much moment in this connection, for we have seen that experience has changed the order of impulse efficiencies in us from that which would be normal, through inheritance, if no experience had affected us. Habits of action have tended to make easy the reactions to certain special impulses, and hence have tended to keep out of mind the opposed impulses which have not been strengthened by habit. We have "yielded to temptation" so often in certain directions that an artificial order of impulse efficiencies of the moment has been formed in us.

It seems necessary, therefore, to concede that if time for reflection be given, inasmuch as the effects of habit will then lose efficacy because the stimulus is not realised in completeness, the less habitually answered impulses will

tend to gain their natural strength, so that in reflection the order of impulse efficiencies will be different from that order as grasped at the moment of stimulation to reaction ; *i.e.* the order of impulse efficiencies then presented will tend to correspond with our own *norm* as determined by inheritance, will represent our "better self," as we are wont to say.

The very nature of the stimulus will also be altered if time be given to reflection : for it will be conceded that our conception of the various elements which go to make up the complex that stimulates us to activity will change with time, one element gaining in power, another losing its influence ; associations appearing which develop the stimulating complex in directions which modify its quality essentially and alter the mode of the reaction it tends to induce.

Still more marked is the change due to alteration of the intensity of the stimulus, which is liable to result from reflection ; for stimuli are wont to vary in intensity from moment to moment, and furthermore are reduced in power relatively by the development of associative trains, which development involves distraction of attention from the stimulus that originally affected us.

Thus it is that in moments of restraint from immediate reaction to stimuli there arises within us another order of impulse efficiencies than that of the moment, and this new order gives us a new standard ; viz.

(B) *The Relatively Stable Individual Ethical Standard*

Judgment under this standard is determined by the fact that the arrangement of the series of impulses alters, as above explained, if held for any length of time in consideration, and we are therefore led to judge as to what is right

or wrong by that special series which shows itself most effective after the enthusiasms of the first moment are gone. These more permanent series are the bases of our mature ethical judgments, they determine our personal code of morals. To these standards we refer all cases of action in others or in our own past, when we are making a careful estimate of others' characters, or are passing judgment on our own actions in moments gone by.

That the "individual ethical standard-of-the-moment" varies very noticeably from this "relatively stable individual standard" in each of us is evidenced by the frequency with which our conscience¹ smites us in remembering our past acts; in other words, by the frequency with which we find that the arrangement of the impulse series of the moment has in the past differed from the relatively permanent individual series which now gives us this relatively stable individual ethical standard.

But it must be noted that we are still dealing with series that are only relatively permanent in their order; with standards that are liable to change from year to year, and, to a lesser degree, from day to day: for it is clear that as these standards are determined by the individual mental constitution of the man, they must change, as do the man's mental fields, with growth and development and alteration of environment. These more permanent ethical standards of our youth are remembered with shame or wonder, or even with laughter, in middle age.

The effects of habit too, as we have above noted, are here most marked. Habit changes the current of our thinking, and altering, therefore, the efficiency of certain impulses changes our ethical standards. It is because habit is so powerful an agent in the formation of our standards that width of view and of moral education is so

¹ Cf. Chapter XV. below.

important in ethical matters. If we individuals constantly surround ourselves with companions whose actions are determined by standards which the race of moral men as a whole has declared unworthy, we shall, nevertheless, all too soon learn to forget their immoralities, and actually may come to feel a sense of loss when we are not under their influence. We are ourselves, to a large extent, responsible for, as we are to a great extent the makers of, our own ethical standards.

As we have said above, we are evidently still dealing with standards that are only relatively permanent, that are constantly liable to change. Few men, however, realise this variability, this shifting nature, of individual moral standards. The average man never realises it. He is, although unwittingly, the most ardent of absolutists. His own personal standard he takes to be a reflection, as it were, of a certain fixed Absolute; and if others differ from him, it is, in his view, because they are thoughtless, or are led by other than moral influences, or are not sufficiently developed to appreciate what is really moral. He is content, although he know it not, to deal always entirely with subjective standards, and when he would have something less variable than the individual standards of those who surround him he canonises his own standard.

§ 8. As soon as we do realise the variability of the individual standard, however, we refuse to be satisfied; we ask for something more certain and stable; we no longer care so much what our own or another person's individual standard is, but we do ask what it ought to be.

We long to discover some standard which will be fixed and stable for us at all times; which will show no variability; which will enable us by attention to avoid acting at one time in accord with our momentarily fixed

series of impulse efficiencies, and yet in such manner that the act as recalled will stand in opposition to the series dominant in subsequent reflection. We look for some standard which we may depend upon at any moment, and this, we realise, can only be obtained if we can verify its qualities by the evidence of others than ourselves; we look for a standard which will not only serve us, but one which will be recognised by all of that set of men with whom we wish to class ourselves. It becomes evident to us, then, that standards of individuals can have no philosophical validity. It is thus that we formulate for ourselves standards which contain all that we think best in ourselves and in those who surround us: furthermore, we become more or less familiar with the items of which these new standards are composed, and with the order of efficiency of these items, so that we are enabled to place them in comparison with our own series of impulse efficiencies of the moment of reflection and perchance modify this latter.

Thus we reach what we may call

(C) *The Ethical Standard of the most highly moral man of whom we can conceive*

This is the standard we all use more or less completely, whether we recognise that fact or not. Constituted as we are, it is impossible for us to live unaffected by the standards of those with whom we live; from the very fact that we are social beings our standards must be influenced by the standards of others; standards of Class B constantly tend to be replaced by standards of Class C.

Especially true is it that we, as ethical critics, must acknowledge this standard of the ideal man apart from our own individual standards, if we are to treat practical ethics with any breadth. The individual peculiarities of our own

impulse series, whilst they must remain none the less valid for us, must be treated as individual rather than general; and our criticism must be determined by reference to a field broader than the individual field; one which contains all that is common to those with whom we wish to class ourselves.

We reach here, in the words of Professor J. Mark Baldwin,¹ "a position taken up by Aristotle, and so often reasserted in the history of ethical discussion, the position which finds itself obliged to fall back upon a hypothetical 'best man' or oracle, whose judgment would be correct if it could be had." This standard the reader will note, however, is not that of the "perfectionists" whose conception of the ideal man commonly assumes the very standard which it attempts to explain. The ideal standard which we here consider has its value through its width of reach and application, through the objectivity which is attached to it, and which it gains as all other concepts gain their objectivity.

This standard indeed is still really changeable and unstable, but, relatively speaking, it is unchangeable and stable, for its variations are determined by processes of wide reach and slow development. It must vary with width of experience, of education, of refinement. It will change as a person limits his notions of life and of the Universe, or as his views become broader and more sympathetic. It will alter with variation of his conception as to what is worthy in the world surrounding him, and as to the sincerity and value of other people's beliefs. But for all this it is relatively stable.

The relative stability of this standard gives it objective force as a real existing Ideal. It becomes real in nearly

¹ *Philosophical Review*, vol. iv. No. 3. Cf. also Professor J. Mark Baldwin's contributions to this subject in his *Mental Development* and elsewhere.

the same sense that objects in the physical world are real; and it is for such a real standard that we search. As late thinkers have taught us, our notions of reality in the world about us are to a great extent dependent upon the possibility of comparison by individuals of effects upon themselves *and others*, and by the perception of agreement in the experiences involved; in other words, are dependent upon social recognitions. As Professor Royce puts it, "it is social community that is the true differentia of our external world."¹ With this view in mind it becomes clear that the standards that we are now discussing must become objective in a sense that allies them closely to the realities of the external world; for in the conception of these standards we are taking account of the agreements in the experience of those whose judgment we believe to be most worthy of confidence, and are endeavouring to co-ordinate our own experience with these agreements. As Green tells us,² "man must in some way identify himself with others in order to conceive himself as the subject for a good which can be opposed to such as passes with his own gratification."

It is this impulse series of the model man as we conceive him which is considered by the theoretical moralist. It is such an impulse series, as I understand it, that Dr. Martineau has depicted in his valuable *Types of Ethical Theory*. His introspection has shown him that the standard that obtains most permanently for himself, in common with the men he most honours, is based upon the relative efficiency of the impulses which within him and them press for recognition and expression. But he appears to me to be in error in so far as he would lead us to assume that the order of impulse efficiencies, which he describes, has absolute validity.³

¹ *Philosophical Review*, vol. iii. No. 5, pp. 529, 530.

² *Prolegomena to Ethics*, p. 264.

³ Cf. Sidgwick, *Method of Ethics*, p. 370 ff.

§ 9. In emphasising, as we have done above, the value of the recognition of others' standards, we must not, however, overlook the fact that individual differentiation of impulse series is none the less exceedingly important, for upon it is dependent

(D) *The Ideal Ethical Field of the Individual*

This ideal field, from our standpoint, must be a variable one indeed, for it will differ for each individual; it is no Absolute as usually conceived; no fixed objective Platonic ideal towards which we weakly strain; but it is determined by the impulse series which in some direction differs from the normal series, and persists with each one of us; and in this divergence the individual feels that the world ought to agree with him. It is the living in accord with this moral ideal that constitutes a man an effective moral being, and makes his life of consequence in the world.

This ideal represents, or corresponds with, the process of divergence from typical reaction, concerning the importance of which we speak at length in the next Part of this book.

Each one of us, however prosaic, has some sort of an ideal field of this kind; non-agreement with it in others looks like moral error. So firmly rooted is this belief in one's own ideal that intolerance is proverbial among fanatical sectarians; intolerance which, were the subject not too serious, would often appear all but amusing to one who looks at the subject from a student's standpoint.

In the course of history now and again an individual ideal, when expressed, enlightens the world ethically, and in him whose ideal thus enlightens we have the ethical genius, the prophet. It is the prophet who shows to others an ideal impulse series, which they at once recognise

as effective for themselves, although but for him it would have been unknown to them.

A genius in any field is always impelled by instinctive forces which he finds it difficult to suppress or control ; forces which are combinations of inherited instincts of unusual form or power ; as we have seen, he not unusually feels these forces as leading him from without ; they at times appeal to his consciousness as voices or visions rising even to the verge of actual hallucination. Intellectual endeavour can never create the light which displays itself in the actions of the genius, although it may aid him in the development of his power, and may teach him valuable methods of using this power. The genius teaches us the way : Nature through him sheds a light on some dark place in life and shows us sources of delight, possibilities of activity, which have always been within our grasp, but which, without the genius, would have remained hidden from us.

The prophet is a special type of genius whose message to the world is ethical in form ; one who gains a special ethical insight, hears a special "voice," and is able to tell of his vision or message to others of us who cannot see nor hear by ourselves, but who recognise the vision or word when the lesson taught by the prophet reaches our minds.

In closing this first division of this chapter, I may remark that if my argument be correct, and if religion be of instinctive nature, then the impulse which leads to religious expression must become part of the latest form of the impulse series which has been developed in man ; not only must it govern and enforce the instincts of earlier origin, but it must function with them all in the production of our highest moral codes which make the basis of the noblest character.

In other words, the highest form of moral code must

include, and be dominated by, this impulse to restraint which permits the instincts of broader scope to repress those of less wide importance.

Of this I shall speak more at length in later chapters.

II.—OF THE RELATIVITY OF MORAL CODES

§ 10. The reader will have noted long since that we have been leading up to a doctrine of the relativity of moral standards; no novel doctrine he will say to be sure. But it is worth while to note that we have above been studying the nature of these moral standards solely in relation to our impulses; and worth while also to remind ourselves that the doctrine of relativity, which has often been suggested to thinkers as the result of the study of moral phenomena as seen in men around them, appears to be a doctrine which is necessarily involved in the very nature of the impulses which determine the existence of ethical standards; is dependent upon the serial order of their rise into consciousness, and upon their development in a more or less definite order co-ordinate with the growth and development of the men who experience them.

We see that the very nature of the development of man's impulses involves the existence of different standards at different eras in his development, of different standards in different races of men of any one era, of different standards in different men of the same race and tribe, of different standards for the same man at different times of his life. We see that the lack of agreement among men in reference to any ethical principle, which is brought out so forcibly by Professor Sidgwick in the third Book of his *Method of Ethics*, is essentially necessary in man, constituted as he is. It is the observation of the existing facts, corresponding with

these deductions, that has led men to uphold doctrines of ethical relativity.

We see furthermore that this nature of impulse involves the necessity of the existence of a difference between the standard of the moment and the relatively permanent standard. The standard of the moment leads us to deal with emergencies and is retained by nature because *in emergencies*, under conditions where reflection is impossible, the individualistic self-preservative instincts are, on the whole, more important to emphasise than the social instincts. The more permanent standards, however, are those which are most important for each and all of us; for upon them is dependent our sense of moral failure, of sin, in relation to our action in the past; to them we must trust for a strengthening of the more persistent, the so-called "higher" impulses, so that in our action without reflection we may tend less and less to act in opposition to these more permanent standards; or, in other words, so that we may come to sin less and gain in righteousness, so that our acts when viewed in retrospect will not stand in opposition to those more permanent series of impulse efficiencies which determine our higher standards.

§ 11. The method of psychological analysis, with which we have approached this subject, also enables us to brush away certain difficulties which appear to oppose the acceptance of a doctrine of moral relativity.

As I have said above, when men come to think of the subject of right and wrong seriously, and note the diversity of standards, they demand to know not what men's standards are, but what they ought to be; they demand what we speak of as an absolute code of morals; they ask, in other words, for what is real in goodness.

Now I have no quarrel with metaphysical doctrines of

the Absolute, which may be true without at all interfering with the conclusions which we, as psychologists, here reach. It is a satisfaction, therefore, to find that this practical reality of the good, as psychically experienced, is discoverable under our conceptions.

We all realise that in psychic experience that is real which is most highly stable in consciousness: indeed I hold that the quality of reality is given to any object in consciousness by its relative stability, by the absence of opposition to its taking its place in, to its absorption into, the apperceptive system existing in us at the time of consideration. It is apparent therefore that, speaking psychologically, the quality of reality, of absoluteness, may obtain as well for standards of ethics as for any other type of mental objects; and that all that is necessary in order that they may show this absolute character is that they have just such a relative fixity as we have seen they do have under the processes of reflection upon our own standards and those of the best of men as we are able to conceive of them.

Analytical psychology thus gives us an explanation, and in fact a description, of the absolute ethical standard in terms of relativity: so that we are no longer compelled to conceive of this Absolute as forced upon our attention from without, as many idealists would teach us that it is: nor as determined by a future quasi-static condition which we now conceive of because we know our race to be approaching to it, as Spencer would teach us;¹ this latter teaching being based upon a notion of a coming man in whom there is produced "a correspondence between all the promptings of his nature and all the requirements of his life as carried on in society"; a man of whose probable existence in the future I see no evidence whatever in the processes of development

¹ *Data of Ethics*, § 104.

as they unfold themselves before our eyes with ever-increasing complexity, involving ever - new necessities of adjustment.

§ 12. In closing this chapter I must say a word to some readers whom I seem to see depressed by loss of faith in conceptions which have gained fixity in their minds as years have flown. In scientific study the facts must be faced whether we enjoy the process or not. And yet while I sympathise with, as I have in years past known, the sense of loss experienced by such readers, still I think that on the whole we must agree that we are not losers by our change of conception. This notion of the relativity of ethical standards is surely not in any respect an ignoble one; rather does it appear to me to be nobler than the notion of absolute standards as most men conceive of them.

The conception of an absolute standard in ethics, the notion of a fixed universal good which the moral man strives to conceive and to represent, has in itself, as I have suggested elsewhere, great value of an æsthetic type altogether apart from its philosophic value; it attracts us by the relief it offers from the distracting oppositions of individualism, and by the fact that it arouses within us that certain sense of sublimity which attaches to all things that are dimly felt to exist, and yet but indefinitely realised; to all that which, on account of inscrutableness, invites worship. This æsthetic value is perhaps to a great extent lost if we accept the doctrine of relativity here urged.

But if we lose something in adopting the standards of relativity, I think we are on the whole gainers: for it is apparent that our view teaches us that the sense of goodness is never to be lost to us. If an absolute fixed good existed and were once attained, if the code of an absolute Ethic were once known so that it could be applied to all

of life, then surely with this, as with all else of human attainment, its commonplaceness would involve less of interest for us; for with the attainment of the goal fixed for us, in the end our race would be deprived of all conception of noble action; would automatically act in a fixed way with no thought of results.

The doctrine here defended, on the other hand, enables us to look forward to an ever-new conception of the Good, arising as man develops. As these standards are determined by subjective states, as they differ with human attainment and enlightenment, so evidently must they be determined by individual character; as that develops, so will our estimate of goodness continue to develop, ever disclosing to our view new moral realms towards which we may reach out, and ever bringing to us new enthusiasms.

But some critic is not unlikely to say that all this is very cold comfort if at the same time we are compelled to grant that these very standards which are to arouse our enthusiasms are as fleeting and unstable as they are here held to be. We must remember, however, that it is only in practical life that there is any proper demand for unchanging objective standards, and, as I have shown above, such standards as are thus demanded do exist for us, standards which have a stability very closely comparable to that of the objects in the physical world in which we live.

Nor do I see why the philosopher should ask for more. It is true that if we think of ourselves as entities freed from the influences which move the universe and guiding our own conduct altogether without compulsion, then we may well be discouraged and dismayed to feel that there is no fixed type of the best conduct which we may use as a basis for imitation in the building up of morality. But if we are logical determinists who realise that we are but part

of the great universe which is moved by powers beyond our ken, who acknowledge with Professor Sidgwick that whilst the sense of freedom is necessarily connected with the act of willing, nevertheless our free egohood is an inherent part of this universe, the development of which is fully determined; then it appears to me that there is no proper philosophic demand for the existence of an absolute ethical standard, such as we might comprehend by reflection, so long as the relative standards which we can grasp are sufficiently stable to appear to the average man to be firmly rooted in common human nature.

CHAPTER XV

OF CONSCIENCE AND THE SENSE OF DUTY

I.—OF CONSCIENCE

§ 1. IN the preceding chapters we have frequently assumed the existence in ourselves of what we call conscience, and I have taken it for granted that the reader appreciates correctly the nature of that state of mind which results from the action of conscience: I shall now ask him to study this mental state with me a little more in detail.

The experience to which we refer when we speak of the "voice of conscience" is familiar to all; as we use the word objectively, conscience is but a term employed to describe a certain capacity which we possess; a capacity which is appreciated subjectively by the forceful presentation in consciousness of an impulse which arises as we reflect upon our past actions, and as we perceive that this impulse was not followed in that past, although it would be followed could we now live in that past again, and could we act again as now in the moment of reflection we wish we had acted.

Conscience, then, is determined by the powerful presentation in consciousness of an impulse; this powerful presentation resulting from the fact that an instinct of a persistent if not of an intense type has been inhibited in our life of the past; this inhibition having been effected by some force which was temporarily more powerful, although

less continuous in its influence, than that which presses the persistent impulse into prominence.

I need scarcely tell my reader that this view is substantially that expounded by Charles Darwin in the fourth chapter of his *Descent of Man*; nor can I too urgently beg him to re-read this chapter if by chance its teachings are dim in his mind. It would be unnecessary for me, indeed, to do more than show the harmony between the results of our previous consideration and this doctrine of Darwin's did I not wish to emphasise certain points which Darwin himself was not concerned to treat in detail, and to make certain explanations without which the doctrine seems to me to be open to criticism.

Darwin's statement of the case is so strong that I shall quote quite at length certain passages from the chapter above mentioned.

"The more enduring Social Instincts conquer the less persistent Instincts. Why should a man feel that he ought to obey one instinctive desire rather than another? Why is he bitterly regretful, if he has yielded to a strong sense of self-preservation, and has not risked his life to save that of a fellow-creature? or why does he regret having stolen food from hunger?"

It is evident, in the first place, that with mankind the instinctive impulses have different degrees of strength; a savage will risk his own life to save that of a member of the same community, but will be wholly indifferent about a stranger: a young and timid mother, urged by the maternal instinct, will, without a moment's hesitation, run the greatest danger for her own infant, but not for a mere fellow-creature. Nevertheless, many a civilised man, or even boy, who never before risked his life for another, but full of courage and sympathy, has disregarded the instinct of self-preservation, and plunged at once into a torrent to save a drowning man, though a stranger. In this case man is impelled by the same instinctive motive which made the heroic little American monkey, formerly described, save his keeper, by attacking the great and dreaded baboon. Such actions as the above appear to be the simple result of the greater strength of the social or maternal instincts than that of any other instinct or motive; for they are performed too instantaneously for reflection, or for pleasure or pain to be felt at the time; though, if prevented by any cause, distress or even misery might be felt. In a timid man, on the other hand, the

instinct of self-preservation might be so strong, that he would be unable to force himself to run any such risk, perhaps not even for his own child. . . .

Man, from the activity of his mental faculties, cannot avoid reflection : past impressions and images are incessantly and clearly passing through his mind. Now with those animals which live permanently in a body, the social instincts are ever present and persistent. Such animals are always ready to utter the danger-signal, to defend the community, and to give aid to their fellows in accordance with their habits ; they feel at all times, without the stimulus of any special passion or desire, some degree of love and sympathy for them ; they are unhappy if long separated from them, and always happy to be again in their company. So it is with ourselves. Even when we are quite alone, how often do we think with pleasure or pain of what others think of us—of their imagined approbation or disapprobation ; and this all follows from sympathy, a fundamental element of the social instincts. A man who possessed no trace of such instincts would be an unnatural monster. On the other hand, the desire to satisfy hunger, or any passion such as vengeance, is in its nature temporary, and can for a time be fully satisfied. Nor is it easy, perhaps hardly possible, to call up with complete vividness the feeling, for instance, of hunger ; nor indeed, as has often been remarked, of any suffering. The instinct of self-preservation is not felt except in the presence of danger ; and many a coward has thought himself brave until he has met his enemy face to face. The wish for another man's property is perhaps as persistent a desire as any that can be named ; but even in this case the satisfaction of actual possession is generally a weaker feeling than the desire ; many a thief, if not a habitual one, after success has wondered why he stole some article.

A man cannot prevent past impressions often repassing through his mind ; he will thus be driven to make a comparison between the impressions of past hunger, vengeance satisfied, or danger shunned at other men's cost, with the almost ever-present instinct of sympathy, and with his early knowledge of what others consider as praiseworthy or blameable. This knowledge cannot be banished from his mind, and from instinctive sympathy is esteemed of great moment. He will then feel as if he had been baulked in following a present instinct or habit, and this with all animals causes dissatisfaction, or even misery.

The above case of the swallow affords an illustration, though of a reversed nature, of a temporary, though for the time strongly persistent, instinct conquering another instinct, which is usually dominant over all others. At the proper season these birds seem all day long to be impressed with the desire to migrate ; their habits change ; they become restless, are noisy, and congregate in flocks. Whilst the mother-bird is feeding, or brooding over her nestlings, the maternal instinct is probably stronger than the migratory ; but the instinct which is the more persistent gains the victory, and at last, at a moment

when her young ones are not in sight, she takes flight and deserts them. When arrived at the end of her long journey, and the migratory instinct has ceased to act, what an agony of remorse the bird would feel, if, from being endowed with great mental activity, she could not prevent the image passing through her mind of her young ones perishing in the bleak north from cold and hunger.

At the moment of action, man will no doubt be apt to follow the stronger impulse ; and though this may occasionally prompt him to the noblest deeds, it will more commonly lead him to gratify his own desires at the expense of other men. But after their gratification, when past and weaker impressions are judged by the ever-enduring social instinct, and by his deep regard for the good opinion of his fellows, retribution will surely come. He will then feel remorse, repentance, regret, or shame ; this latter feeling, however, relates almost exclusively to the judgment of others. He will consequently resolve more or less firmly to act differently for the future ; and this is conscience ; for conscience looks backwards, and serves as a guide for the future."

§ 2. We may speak, then, of conscience as the protest of a persistent instinct against its inhibition by a less persistent, but for the moment more powerful, force. This opposing force may be the outcome of reasoned process, or it may be due to the existence of what is recognised to be another instinct which is less persistent, but liable to be temporarily more powerful, than the persistent instinct which it inhibits.

If this be the true view of the nature of conscience, then we should expect to find it, as we do, appearing most clearly in our introspective and retrospective moods, when we think over the acts of the past and reflect upon the nature of the revived impulses which are brought to mind by the remembered circumstances attending these past acts. For, in the first place, at such moments of retrospect, the active resultants of the reasoned processes of the past can no longer follow upon the course of thought as it is revived ; and on that account the persistent impulses, which would lead us to actions opposed to those that were dictated by reason in that past, are able in the moment of retrospect to impress themselves upon the mind.

In the second place, we must note that it is the earlier formed, the more thoroughly co-ordinated instincts, those which we are wont to speak of as the "lower" instincts, that are temporarily forceful; and these in moments of retrospect fail to react because the actual stimuli to their hypernormal reaction are lacking. Thus it is that the persistent impulses that have been opposed will be able to come into prominence.

A man, for instance, may reason within himself that a theft from his rich employer will harm the latter little, and will bring to himself and to his family much that is of real value to him and to them; and with the opportunity for speculation before him to strengthen his argument he may take the other's property. But in the stillness of the night, when the active steps which his defalcation involves cannot result from the argument with which he has sophisticated himself—when the development of his thought into action is inhibited by the circumstances in which he is placed,—then the persistent social instinct gains his attention, then his conscience "smites him." In other words, the impulse resultant from the inhibition of the persistent social instinct (against stealing) occurs and recurs to his mind, together with the pain that necessarily goes with the idea of the inhibition of this impulse by the remembered past act.

Or to turn to the clash of instinct with instinct, a man overwhelmed by passion may strike his opponent, and may strike to kill. But in a calmer moment, when this opponent is not at hand to be struck, when the development of the instinct leading to individualistic protective action is not called out,—and this in consequence of the absence of the real stimulus to such action,—then the persistent social instinct has opportunity to develop, and becomes prominent in the voice of conscience which reproaches him.

In order that we may gain a more complete conception of the nature of conscience, let us make a further study of it in these two aspects.

§ 3. Let us consider, in the first place, the inhibition of one instinct by another. As Darwin says, "The more enduring social instincts conquer the less persistent instincts." Why it is that these social instincts are "more enduring" we have already briefly suggested: we shall discuss this question more fully in § 10 below.

But here I wish to call attention to the fact that it is not only the social instincts that are more enduring, and that conquer less persistent instincts, as might appear from the above quotation from Darwin; for, as we have seen, there is a hierarchy of instinct groups, and a hierarchy of the instincts within each group, and these hierarchies evidently imply differences of persistence; consequently we must expect to find these differences of persistence, and conscience which is determined by them, appearing in the broadest of relations.

It thus becomes easy to explain the fact that, where the instincts that relate to the persistence of the species have been carelessly gratified, men often find themselves in retrospect oppressed by conscience, *i.e.* by the ever-recurring pressure of those instincts regulative of sexual relations which relate to social advantage, and which latter, had they been followed, would have led to the curbing of passion. The licentious man, if he be not too hardened, when he reflects upon his past, must feel reproach arising from the pressure of those instincts that guide our social life in the direction of monogamous sexual life, and which produce in the best of us devotion to one wife and to the children borne by her.

It is thus also that where the purely individualistic instincts have been gratified we often experience a protest from the various grades of instincts which are higher in the scale than the individualistic ones; not only from the instincts which relate to social life, but also from those instincts which relate in certain connections to the persistence of the species.

We may illustrate the last-mentioned class first, by noting how the man who has fled from personal danger is reproached by his conscience when he reflects that, in his efforts to save himself, he left wife and children unprotected.

The contests between social and individualistic instincts, however, furnish us with the most vivid examples of the enduring reproaches of conscience, and this because the individualistic instincts are the least persistent and in general the most powerful, while the social instincts are the most persistent and in general the least powerful. The "Fury" who pursues the murderer is the personification of the pressure of the enduring social instinct which leads to the protection of human life, an instinct upon which the very existence of the more complex social fabrics depends. The remorse of the man who has gained individualistic advantage by lying, or by stealing, is closely allied to the distress of the murderer.

§ 4. In § 3 we have spoken, as Darwin did almost exclusively, of conscience as it is developed by the clash of instinct with instinct; but clearly, under this view, if an emphasis of opposition to a persistent instinct is brought about in any other way, then we shall have the same voice of conscience raised in protest. It must be apparent that the reasoned emphasis, or the argumentative strengthening, of the more thoroughly co-ordinated instincts may often bring about such an opposition as that above referred to.

The man who argues himself into the belief that the necessities of self-preservation demand and excuse lying must expect to be belaboured by his conscience after the danger is past. He who reasons that abounding sexual capacity would not have been given to man had Nature not intended him to exercise this capacity without restraint, and who acts in accord with that reasoned result forgetful of the value of the later developed restraining instincts,—such a man must expect eventually to find himself smitten by a conscience born of his social instincts.

The reasoned emphasis of ideal ends may also lead to similar results. The man who convinces himself by argument that indiscriminate benevolence is, on the whole, injurious to the recipient of charity, if he act in accordance with his conviction, must expect to face the burden arising from the obstructed social forces within him, from the pressure of his deep-seated benevolent instincts. We have all had such experience.

§ 5. Some critical reader may be inclined to say that I have thus far been considering conscience in an artificially simplified form: for, as a matter of fact, in our complex life the variations of impulse are indefinite in number and the oppositions of conscience often unanalysable in their variety. As Professor Royce has well said of conscience as we usually experience it: "Conscience is a well-knit system of socially acquired habits of existing acts, a system so constituted as to be easily aroused into conscious presence by the coming of the idea of any hesitantly conceived act."¹ All this is without doubt true in relation to our normal experience of conscience; but my object here is not to describe conscience in its full and complex development, but conscience in its simplest forms. In so brief a study as we have space for

¹ *Philosophical Review*, II. v. p. 454.

here we can hope to do little more than sift out certain more or less typical forms for consideration.

If the position taken above be correct, then we may say that conscience is no power or "faculty" of a unified nature, as it is not infrequently conceived to be; rather that for each persistent instinct there exists a special type of conscience, each type differing as to the psychic elements involved, but all having a common ground in their always painfully persistent impulsive demand. In this sense there is a special form of conscience felt by the lover if he neglect his mistress; another form felt by the husband if he neglect his pregnant wife: another that impresses the father who may have neglected his children; these all relating to the instincts which are of importance to the persistence of the species.

There is another group of consciences, if we may so speak, that relates to what we may call the more direct social instincts—the ethical consciences that contend against lying and theft, murder and adultery. There is still another group of consciences to which we have already referred in an earlier chapter—consciences that relate to instincts which are effective in producing social consolidation. We clearly have a patriotic conscience which reproaches us if we act for individualistic benefit, or even for the advantage of wife and children, without regard to the advantage of the special social group that we call "our country": we as certainly have a benevolent conscience which smites us when we "harden our hearts," even though, as happens in not a few cases, this repression of the expression of sympathy happens to be unquestionably wise.

So also if our view be correct we might expect to find within ourselves an æsthetic conscience protesting against the careless production of ugliness in our handiwork; and this

for the very reason that, as we have already seen, we are compelled to believe artistic expression to be the result of the working out of a true instinct, the function of æsthetic expression being the fostering of social consolidation. If such an æsthetic conscience exist we should expect to find it developed only so far as our tendencies to æsthetic expression are strongly developed; and I think it can be seen to be gradually dawning within our race.

Some of my readers, especially if they be artists, will, I doubt not, deny that even the ghost of an æsthetic conscience exists among the mass of the people; but I would remind such doubters that we are all also not infrequently tempted to ask whether the ethical conscience also is really widely existent in man, or whether it may not be disappearing among the masses: yet from time to time our doubts in this direction are set at rest by some powerful and widespread movement in the right direction; perhaps by some indignant protest of the people against political crime which we had thought they had come to condone. I myself am confident that there exists within each of us the germ of an æsthetic just as much as of an ethical conscience, and that the former as the latter needs but opportunity and encouragement to grow into a force most powerful for good.

§ 6. But it must be evident to the reader of the preceding argument that if these consciences of ours are determined by the existence of impulses which are due to the inhibition of instincts as modified by life experience, then there are also very likely to be noted what we may call pseudo-consciencies which we should find to be determined altogether by the existence of individual idiosyncrasies, or of individually acquired habits of action, which from time to time are inhibited. These pseudo-consciencies, having individualistic value only, must be care-

fully differentiated from the true consciences that have relation to racial values.

An example of the idiosyncratic type we have in what we may call, by a stretch of verbal usage, the physiological conscience, which for each individual enters a protest against his eating certain foods that at certain times in his life may have disturbed his digestion. This, as I have just said, would not generally be called a protest of conscience, but in my own experience I feel that there is no essential difference to be noted, except as to content, between the mental state thus experienced and the mental state experienced when I review some failure in what we are accustomed to speak of as the moral life.

An example of the broader habit type we have in what may be truly called the "business conscience" that smites the average hard-worked man, whose life is little varied by holidays, when for some days he "takes a vacation."

The distinction between these individualistic quasi-consciences and the real racial ones is made, as is the distinction between individually acquired habit reflexes and instincts of which we have spoken in a preceding chapter, by noting the variable nature of the former class and the persistent invariableness of the latter; and in the fact that the former class are personal, individual, while the latter are found to belong to all, or to a large proportion of our race. That it is most important to distinguish between the true and the pseudo-consciences goes almost without saying, if one recall what we have argued above concerning the very great practical importance of the distinction between instinct and acquired habit; for true conscience tells us of instinct, while the pseudo-conscience tells us merely of idiosyncrasy, or of acquired habit, in nearly or quite reflex form. The true conscience warns us against actions which in the past history of our race have almost certainly been opposed to

the welfare of the individual, or more often of the species, or of the social aggregate; while the pseudo-conscience merely tells us that we are subverting an artificial individualistic habit.

It is one of the special functions of the religious instinct that it enables us to differentiate between the pseudo-consciences and the real consciences which are implanted in us by Nature, and which are not due to individually acquired habit; for the restraint which religion imposes enables us to note the differences of persistence and width of application more clearly than would otherwise be possible.

With conscience is connected a distinct sense of obligation; this, however, is more especially developed in connection with the differentiation of conscience which we discuss in the second division of this chapter, and I shall therefore reserve all consideration of this subject.

II.—THE SENSE OF DUTY

§ 7. In what has preceded this we have been considering the effect in consciousness of the protest of impulses which are determined by instincts, whether modified or unmodified by life experience, all of which are on an equal plane, so to speak, all under appropriate conditions, having equally their proper place in man's life; this protest, therefore, and its conscious result cannot but be in main the same in quality, however varied be the impulses which stand opposed. Introspection shows that this deduction from theory is correct, for no distinction is to be made between conscience as it arises in connection with the most varied of impulses.

The conscience, for instance, which affects one who allows his individualistic impulses to overpower those relating to the persistence of species is not differentiated, except so

far as the contents differ, from the conscience which affects one who permits his sexual instincts to overwhelm those that relate to social life. So true is this, indeed, that men have been led, as we know, to look upon conscience as a special "faculty," independent of the impulses which bring it into consciousness, a "faculty" which is stimulated to activity by failures to act in accordance with any of those standards which we call "nobler."

But if the position taken in what has preceded this be correct, the impulses which must appear upon the inhibition of the religious instinct will vary noticeably from the impulses corresponding with the other instincts, in one important particular.

The religious instinct, it must be remembered, according to our hypothesis, functions to the production of restraint from all variation from typical reaction; consequently while on the one hand all impulses other than the religious impulse are brought into consciousness under special conditions of opposition only, and can only come in conflict with a limited number of other impulses, on the other hand the religious impulse must be called out in all cases where the development of organic instincts tends to be opposed by variant process, and whenever opposition appears to the development of life in accord with that order of instinct efficiency that has become established in each one of us in the course of our evolution as part of our race.

We should expect, therefore, to find a new development of conscience in connection with the development of the religious instinct; a differentiation of conscience, so to speak, that would not appear in connection with any other impulses: a differentiation that would be determined by its very general occurrence, by its appearance in connection with all sorts and kinds of impulses, only provided they be repressed by variant processes, provided they tend to pro-

duce an inversion of that order of impulse efficiencies which nature has impressed upon us.

Such a differentiation of conscience I think we find developed within us, and it is this differentiation that we usually have in mind when we speak of "the sense of duty."

Duty as usually conceived is not concerned with the opposition of two specific impulses, but with the conduct of our lives in accordance with our recognised moral standards: it deals thus with the relatively permanent series of impulse efficiencies which determines these standards. It leads us to make effort to live in accord with that order of impulse efficiencies which although modified by our experience is nevertheless impressed upon us by Nature's own hand.

In passing I may note one implication from this consideration which has perhaps already occurred to the reader, viz. that the existence within us of the sense of duty, as it is experienced in its fullest form, is conclusive evidence at the same time of the existence within us of the religious instinct; for if my view be correct the full sense of duty is brought into consciousness by, and only by, the inhibition of that order of impulse efficiencies which it is the function of the religious instinct to impress upon us: it is the religious instinct which produces within us the call to conduct our lives in accordance with duty.

We all know of many men outside of the Churches who decline to call themselves religious men because they do not find it possible to conform to current religious customs or to believe in current religious doctrines, and yet who endeavour most strenuously to guide their lives in accordance with the call of duty. Such men we now see must still be called religious, though they fail to recognise that they are led by the same influences that guide their acknow-

ledgedly religious neighbours, whose thought is developed on lines different from their own. Thus we find ourselves led from a new point of view to the position already reached in a former chapter.

III.—OBJECTIONS AND EXPLANATIONS

§ 8. The main objections to the theory of conscience as above expressed are made on two grounds. The first objection is that the theory “does not give conscience as we know it,” and that if it does, conscience itself “is virtually assumed either at the beginning or at some other stage of the explanation.”¹

Let us first consider the second complaint here made, the complaint that this theory does not explain the origin of conscience. This I am glad to concede, for I hold, as I have already noted in Chapter II., that the theory of evolution is not competent to deal with the question of origins at all: although it is true that evolutionary writers often speak as though they were giving us a theory of origins when they are merely explaining the forms of development, I do not grant that they have any right to take any such position.

All that can be properly claimed under their theory is that conscience in its developed form, as we know it, has arisen as a natural product in the course of evolution, and that the germ from which our conscience has developed must necessarily be found in lower forms of activity than those which are noted in man, in whom alone we can assert its presence.

Attention is drawn by opponents of this view to the fact that we cannot positively prove the existence of anything like conscience, as we know it, in the animals; but

¹ Cf. Knowlton, *Origin and Nature of Conscience*, p. 57.

this surely does not by any means prove its absence in them. If we are to uphold such a contention we must on the same grounds decline to believe that any form of sentience exists in connection with the activities of animals which are unable to express themselves in the language of men. But just as we have all come to believe in animal sentience, so we are compelled to believe in the existence in animals of the germ of our developed conscience in much the same form in which this same germ appears in the early life of the young child. There is no evidence that the conception of morality ever comes into our experience as a new creation. The moral shades into the non-moral, and the non-moral into the moral, very much as the field of attention shades into the field of inattention. There is no more reason to conceive of the moral as a new creation than there is to conceive of the field of attention as something superadded to consciousness.

Moreover, nothing could be more absurd than the objection to the view of the evolutionist, who holds that the activities which involve conscience in man are found in germ in the lower orders of animal life, when this objection comes, as it usually does, from one who believes that conscience is a special Divine gift to man; inasmuch as the objector himself must of necessity dogmatically assume that there is such a thing as an animal in which no germ of moral feeling exists, without having any possible means of verifying his assumption.

§ 9. The claim that the theory of conscience we are considering does not give conscience as we know it is a more serious objection, and one to which we must give fuller consideration.

The opponents of our theory hold first that there is no sufficient reason to grant that the altruistic impulses are

more persistent than the egoistic; second, that even if this be granted, the theory does not explain the sense of obligation which appears in connection with conscience; and third, that it does not explain the special experience of remorse which is of the very essence of our experience of conscience. Let us consider these objections in their order.

§ 10. It seems to me that the considerations presented in the preceding chapters of this book give us very good ground for contending that in their very nature the altruistic impulses must necessarily be more persistent than the egoistic. We have noted that our impulses may always be arranged in a hierarchal order, and that those impulses which correspond with the inhibition of instincts that have become thoroughly co-ordinated seldom appear in consciousness. We have noted also that as the instincts have been acquired in a certain order so the completeness of their co-ordination must be expected to vary in a like order; and evidently the prominence in consciousness of the impulses due to the inhibition of the several instincts will also vary in relation to their co-ordination, so that the impulses determined by the latest acquired instincts will in general be more likely to be frequently presented to consciousness than the impulses determined by the earlier-formed instincts. But it appears clear, I think, that the altruistic instincts have been much later in development than the egoistic instincts, and we should therefore expect to find the altruistic impulses more persistent in our consciousnesses than the egoistic impulses are.

Again, it appears that the altruistic instincts are built upon already existing egoistic instincts, which are more or less modified in the process, so that when conditions are normal the action of the egoistic and altruistic instincts will coincide. Now as the egoistic instincts which are

modified to serve higher instinctive ends are more thoroughly co-ordinated than the more complex altruistic instincts, the former, as we have seen above, tend to influence consciousness less often than the latter do; but beyond that the impulses resulting from the inhibition of the egoistic instincts, out of or upon which the altruistic instincts are built, will not be likely to appear unless the disturbance of the normal action is relatively extreme; only under a strong stimulus will they influence consciousness in a vivid form. In retrospect, therefore, where the unusual force of stimulus is lacking, we should certainly expect the influence of the altruistic instincts to be the more persistent of the two.

What is more, as we have already explained, the value of the altruistic instincts to the race is dependent almost entirely upon their determination of general trends of action running through varied reactions to varied stimuli; and it thus appears that if our hypothesis be correct, they must necessarily be persistent in relation to those instincts which are developed in response to special stimuli that are effective under less permanent conditions; or in relation to those which are of individualistic value only, and which are only occasionally called into existence.

But we must hasten to acknowledge that this pushing to its conclusion of an argument based upon an hypothesis will have no result other than the upsetting of the hypothesis, unless the facts of experience accord with the theoretical result. As a matter of fact, however, there is a very general agreement that Darwin truly stated the facts when he held that the altruistic impulses are more persistent and permanent than the egoistic impulses. What seem at the first glance to be exceptions to this rule appear only in those who may well be held to be atavistic members of the race; or else they are illusions due to a confusion of thought

on the part of the critic, who thinks that under the theory we should look for a sudden revulsion from hate to pity for instance;¹ forgetful that the fading away of the egoistic impulse must be gradual, and cannot be expected to be reduced to its normal force until the direct stimulus to its appearance is altogether lacking.

§ 11. Let us turn now to the objection that the theory does not explain the sense of obligation which appears in connection with conscience.

In a preceding chapter we have seen how natural it was that the primitive man should have looked upon the pressure of inhibited but persistent impulses as determined by forces acting upon him from without, how natural that the guidance of conscience should have been attributed by him to influences beyond the limits of his own spirit; and we have seen that we ourselves have not yet cast off this illusion altogether, for although we know the influence of conscience to be within us we are not quite content to acknowledge its purely subjective origin, we still think of and describe it as a "voice"; as though it were the utterance of some being speaking to us from without.

It seems to me that one main reason for this persistent objectivication lies in the fact that conscience appeals to us apparently without previous preparation, in the current of our mental life, just as soon as the forces which inhibit the repressed persistent instincts have lost their power; two impulses are felt to be opposed, and presently one of them, for some reason which is apparently not inherent in it, acquires strength, and compels our acquiescence. This is exactly the way the objective world affects us, the way, too, in which our fellow-man often alters the stream of consciousness in us when he wishes to modify our action.

¹ Cf. Knowlton, *op. cit.* p. 78.

The differentiation of conscience, to which we generally mean to refer when we speak of the "sense of duty," will tend to be thus objectified just as all else of conscience is; but it will have a further basis for objectivication in the fact already spoken of that when once a man is influenced by it, it is aroused in connection with all sorts and kinds of impulses and under very varied conditions. To the man, even when he is uninfluenced by the religious instinct which arouses this sense of duty, any suggested action that stands in opposition to a persistent impulse carries with it a sense of contest; but the man who allows his religious impulses to prevail, judges all actions by their harmony with, or opposition to, the order of impulse efficiencies which Nature has implanted and developed within him. Thus it comes about that he is constantly affected by this pressure leading him to adhere to his moral standards; thus that this sense of duty gains a relative permanence or stability; and as all reality, all objectivity is determined by relative stability of conception, this sense of duty becomes *real* in so forcible a way that it is not surprising that we find it difficult to avoid its objectivication, difficult to gain the habit of thinking of it as a subjective phenomenon caused from within and not due to command or pressure from without.

Furthermore, as we have already seen, the fully developed sense of objectivity and of the existence of ourselves over against the world around us is determined largely by our existence in social relations; as Professor J. Mark Baldwin has pointed out,¹ we gain a special conception of self in relation to our moral life, which in the beginning is emphasised by the restriction of our natural individualistic

¹ *Phil. Review*, vi. 3. In Professor Baldwin's *Social and Ethical Interpretation*, which appears just as this book goes to press, the reader will find (chap. viii. 2) a very interesting account of the steps in the process by which this sense of obligation comes to be attached to the "higher" rather than to the "lower" impulses.

impulses by the guardians of our extreme youth, and which gradually develops, until we conceive of a power beyond and over all human guides, who knows all and guides all, and whose rule is of universal scope; or, as Mr. Leslie Stephen puts the same thought,¹ "The perception that this rule is formed by something outside us, that we imbibe it from the medium in which we live, gives the sense of obligation, though we may become conscious of it as the expression of instincts which have grown up before distinct reflection, and are involved in all our modes of thought and feeling."

It is not difficult, then, to understand the sense of obligation in relation to conscience, the persistency of the notion that the sense of duty is determined by our intellectual recognition of a power beyond ourselves, which gives sanction to this sense of duty. "Without objective conditions," says Dr. Martineau,² "the idea of duty involves a contradiction, and its phraseology passes into an unmeaning figure of speech." And in a certain sense this is true; for I cannot think of a man (myself perhaps) owing allegiance without conceiving of some one to whom, or some "cause" to which, the allegiance is owed. There are, however, as Professor Sidgwick has noted,³ certain cases (truth-speaking, for instance) in which the feeling which we ordinarily call the sense of duty does not seem to involve obligation to another than ourselves. But all this has to do with the study of concepts, which we are not considering here; what we are considering is the sense of duty as a psychological fact; a state of consciousness which arises clearly out of the impulse order of our nature, is of purely subjective origin, and is never directly resultant from any process of ratiocination.

¹ *Science of Ethics*, chap. viii. § 39.

² *Types of Ethical Theory*, ii. p. 4.

³ *Op. cit.* p. 218.

§ 12. It will be seen from what I have said in the preceding section that I am not in sympathy with certain attempts which have been made by prominent ethical writers of the evolutionary school to account for the genesis of this sense of obligation: no modern psychologist will allow that we can account for the appearance of conscience as a quasi-chemical product of other mental states, as was suggested by the language of the early associationists. Nor do I think there is sufficient evidence to lead us to uphold the view of Hobbes that the moral sentiments can be deduced, either directly or indirectly, "from the self-regards of collective man"; there is, in my opinion, no satisfactory evidence that the processes of association or of inheritance can be made to account for the rise of this sense of obligation through the process of transference from means to end, as Mill would have us believe. Nor do I think that this sense of obligation can be accounted for by the supposition that the fear of punishment for certain acts dealt out by the Deity, or by a primitive society for a recognisedly beneficial end, can, by association and inheritance, have developed into this sense of obligation-fear directly connected with the acts themselves.

These and all like hypotheses, it seems to me, have been brought forward in order to rationalise the acts we perform under the sway of this sense of obligation. Men feel the obligation and know not whence it comes; they have not found it easy to defend their subservience to these suggestions within them; they have devised these theories to account for the mental pressure, and to enable them to defend the rationality of their action in yielding to this pressure.

On the other hand, under the correct evolutionary conception, that which makes the very essence of conscience is no new element added to man's mental endowment, but is something already inherent in, and necessarily attendant

upon, the complex mental states in connection with which conscience appears.

§ 13. Let us now examine the third objection mentioned above, viz. that the evolutionary theory does not explain the special experience of remorse, which is of the very essence of our experience of conscience.

I cannot present the objection in better form than by quoting from Dr. Martineau where he says: "Whenever two incompatible springs of action simultaneously urge us, there is an attendant consciousness of superior excellence in one of them; an excellence, not in point of pleasure or advantage, which it were wise to take; not in respect to seemliness and beauty, which it were tasteless to decline; but in the scale of right, which, in carrying our assent, commands our obedience. All these kinds of superiority it is open to us to disregard, but at the cost, in the first two cases, merely of personal inferiority; in the third, of a mysterious and haunting disloyalty. Accusing ourselves of this, we are aware that our offence is not a private mistake to be settled with in our home accounts, but looks beyond ourselves and infringes rights that are not our own; and we are visited by more than shame at failure or regret at folly; we are cast down in severe compunction under the very different sense of guilt."

Dr. Martineau thinks that this experience is incompatible with the theory of conscience as Darwin states it. "Surely it is not enough," says he, "to say, with Mr. Darwin, that this is due to our having indulged the intense momentary impulse which has now faded, at the cost of a persistent feeling which has returned to its usual force. This difference may exist without inducing any sense of sin. . . ."

Dr. Martineau is greatly interested in the overthrow of the doctrine, derived from Hobbes, that the moral sentiments

are deduced "from the self-regards of collective man"; and it seems to me that he fails to appreciate that the psychological theorem which Darwin presents does not necessarily involve any such doctrine: at all events, I think it can be affirmed that Darwin's view, as I venture to restate it, does not in any way involve the doctrine that conscience, or the sense of duty, is determined by any past or present *recognition* of benefits for humanity; rather does it involve the doctrine that the determinants are entirely of an instinctive, impulsive, nature, and are not in the least derived from convention of any kind.

Dr. Martineau's real difficulty, however, seems to me to arise from the fact that he fails to discriminate between the sense of duty and the emotional reaction to which it gives rise. It is the fact that we are depressed in spirit, are filled with despair, as the result of our recognition of failure to live in accord with our sense of duty, that leads him to dissent from Darwin's analysis; but this sense of unworthiness, of contrition, of helplessness, of dependence, is in the nature of an emotional reaction:¹ it is, as we have seen, part and parcel of religious expression, and is indeed the very basis of moral regeneration; but it is far removed from that impression by the more persistent impulses which constitutes the simpler form of conscience, and equally far removed from that pressure arising from our religious instinct, which gives us the conscience in its highest development; although out of these very states arise the emotional instinctive acts, which go so far towards the strengthening of our morality.

Let me here say one word concerning another point. It must be noted, as I have above said, that neither conscience nor the sense of duty are themselves instincts; they are states of mind determined by a special relation between

¹ Cf. Leslie Stephen, *Science of Ethics*, chap. viii., especially § 14.

instincts. I mention this because many writers treat of conscience as if it were an instinct.¹ There is no reason whatever to suppose that conscience, as we know it, would not be developed in the animals had they those highly organic forms of retentiveness which make possible the persistence of the ideal realisations of inhibited impulses which condition man's moral life; nor can it be shown that animals have not in their experience the germ out of which our conscience and our sense of duty have developed; but this being acknowledged we certainly have no reason to hold that conscience is itself an instinct.

I cannot help feeling that if Dr. Martineau had escaped this special psychological error² he would have found less difficulty in accepting the doctrine which he so strongly opposes.

§ 14. In closing, I may perhaps be allowed to say a word concerning the relation of the conception of conscience discussed in what has preceded this, to that conception which is usually held by the religious world at large in our day.

The developmental view of the formation of conscience is often dreaded by the best of people because it seems to undermine the very foundations of their beliefs; but I think if properly conceived this difficulty will be seen to be less formidable than at first appears.

If the reader be a believer in the time-honoured doctrine of moral intuitions he must, so far as I can see, either take the ground that the Creator places conscience in the man at birth as a guide which shall show him the right way, a guide which grows and develops with his growth; or else

¹ Cf. Leslie Stephen, *Science of Ethics*, chap. ix. § 22; and Dr. Mezes (*Philosophical Review*, vol. 5, No. 5), who has lately argued that conscience is an instinct given to man alone and accounting for his advance.

² Cf. types of *Ethical Theory*, vol. ii. book ii. § 8.

he must hold that conscience in each case of its action has as its basis a direct and specific intuitive command from his Creator. In other words, he must take the ground *that conscience is in general the safest guide that he can have to lead him to the fulfilment of the law of God.*

But, as we have seen above, we here conceive of conscience as the protest of a persistent instinct against a less persistent but momentarily more powerful one, and we are led to the belief that conscience has been evolved by natural evolutionary forces. We are thus led, therefore, to look upon conscience as being in general the surest guide we have to mark the way in which we should direct our lives if we would act in accord with what we call the law of development. This law of development, if accepted by the believer in an Almighty Creator, as it is now very generally accepted, must be regarded by him as a law to which God calls upon us to conform in our lives.

In other words, even if he comes to believe that evolutionary doctrine must be accepted, he is compelled to accept no other law than that which his earlier belief led him to hold. He is now, as of old, led to take the ground *that conscience is in general the safest guide that he can have to lead him to the fulfilment of the law of God ;* and evidently, then, the opposition between the two views at once disappears.

PART IV
CONCERNING REASON

CHAPTER XVI

THE NATURE OF REASON

§ 1. IN the second part of this book I think I have justified the usage of the word "Instinct" which I adopt, connected as it is with the necessary interpretation of the significance of instinct actions. I shall now attempt to explain the meaning of "Reason" and to justify the position I take in reference to the use of the word.

Perhaps I ought to say to the general reader that this and the following chapter will not be the easiest of reading for one not versed in psychological technicalities: although I shall endeavour to make my argument as clear as possible, it is necessary to be technical if one is to be exact. The summary in Chapter XIX. is written for those who wish to note the gist of the argument without testing its accuracy.

In what has preceded this, and notably in the caption of the book, I have placed the word "instinct," as we often find it placed, in contradistinction to the word "reason." This implies that in a certain sense Instinct and Reason stand opposed the one to the other. The exact nature of the distinction between the two I shall here endeavour to state.

If the word "instinct" is to be used objectively, then to be consistent "reason" should also be used objectively: and

where I speak of "reason" as opposed to "instinct" I intend to employ the former word in an objective sense to indicate the capacity found in animals, and in ourselves as animals, to act apparently in opposition to, or at least without reference to, instinct.

It will be evident to the reader at once that this use of "reason" implies a wide extension of the meaning of the word; for "reason" is commonly applied to describe only certain highly elaborated forms of what is commonly spoken of as "intelligence." Of this I shall speak more at length below.

It is true that the word "reason" is often used with a subjective connotation just because we employ it to objectify conscious states. We ascribe "reason" and intelligence generally, to animals and men around us, and often when we do so we mean to refer to psychic states that occur in them. Nevertheless I think I use the word as I do with an objective connotation properly and correctly. The word "reason" is also used by certain mystic metaphysicians in many occult ways; but with none of these vague meanings have we to do.

But in order to avoid so far as possible questions as to my meaning, I shall in general here, as in the case of "instinct," adopt a special terminology. In dealing with the objective view I shall speak of "reasoned" or of "intelligent actions," and I shall then mean to refer to those actions which in an objective view appear as the expression of "reason" or of "intelligence."

In speaking from a subjective standpoint I should perhaps properly use the terms "reasoned feelings" or "intelligent feelings" to make my terminology consistent; but it would be demanding too much of the reader to ask him to labour with expressions which all will acknowledge have a most unnatural sound, and I shall therefore use the

word "reasoning" in general in a subjective sense to indicate those psychic states that precede the appearance of reasoned actions; and, in consideration of facts presently to appear, I shall often widen the application of this term to indicate the psychic side of acts which usually would scarcely be called more than intelligent.

§ 2. Professor James, in his well-known *Psychology* (vol. i. p. 8), tells us that "pursuance of future ends and the choice of means for their attainment are the mark and criterion of the presence of mentality in a phenomenon." If the word "reason" be substituted for the word "mentality" I subscribe to this view, and I believe I mean exactly what Professor James means, and what all biological psychologists must agree to. Professor James uses "mentality" here as the equivalent of "intelligence," as appears by the context, and by his index reference. I cannot use "mentality" in this sense because, usage here not being fixed, I employ the term, as appears in my discussion of parallelism in a previous chapter, in a very broad sense, and to cover even those psychic states that cannot be held in the light of attention in reflective consciousness. If all neural action has its physical correspondent, as I think it has, then as there is much neural action which is altogether free from hesitancy, so there is much of "mentality" that has in it no element of choice, although it may well be claimed that very little if any of the field of attention can be shown to be devoid of this element.

Nor do I think that the word "intelligence" can properly be used in a strictly scientific manner in this connection, as Professor Lloyd Morgan uses it in his *Habit and Instinct* (p. 155), where he says: "The point, however, which it is desirable to emphasise is that intelligence involves selection and choice." For as Professor Morgan has himself well

said in another work,¹ there is a great deal of what the average man calls intelligence which is mere *perceptual* intelligence, due to no pursuance of ends nor choice of means, but determined solely by association through past experience; as, for instance, when the intelligent dog, having "occasion to swim across a stream, enters the water at such a point as to allow for the force of the current"; if this be called intelligence, it is impossible to make choice a differentia of intelligence.

I propose, then, to overcome this difficulty arising from the loose use of terms, by employing the word "reason" to cover all those cases in which choice appears. I hold that "the pursuance of future ends and the choice of means for their attainment are . . . the mark and criterion of the presence of" *reason* "in a phenomenon." Reason is thus marked by choice, and choice, be it noted, is the evidence of will; although subjectively viewed the consciousness of willing may be very rudimentary even where choice is clearly indicated in an action as it is objectively viewed.

I thus broaden the meaning to be attached to the term "reason," so that it covers much more than the ratiocinative processes with which the word is usually associated;² which ratiocinative processes appear to arise in connection with a specially elaborated form of reasoned actions which compel the special steps in the correspondent psychic life to be distinctly held in reflective consciousness.

This matter is so important that I must beg the reader to dwell upon it with me a little longer.

§ 3. "Choice," as it leads us to believe in the existence of "mentality" as James puts it, or "intelligence" as

¹ *Animal Life and Intelligence*, p. 365. I do not find Professor Morgan's use of terms always consistent: cf. *op. cit.* p. 95, where he says: "Selection involves intelligence, involves the play of appetite and choice."

² Cf. again Professor Morgan's *Animal Life and Intelligence*, p. 365.

Morgan puts it, or "reason" as I use the term, is an objective phenomenon; it is noted in the action of other men and of living beings, and in ourselves as well, when we consider ourselves as objects; and just because we so note it in ourselves, and note also its subjective accompaniment in ourselves, do we ascribe corresponding subjective accompaniments to the men and other living beings around us in whom the evidence of choice appears.

Choice is an objective *result*, and as objectively viewed is preceded by hesitancy. Now evidently, if the theory of parallelism between psychic and neural action be true, some psychic process or other, corresponding to this hesitancy, must precede the choice, and, furthermore, to this choice must also correspond some psychic occurrence.

But in the highest forms of life, in our own selves, we find that the occurrence of choice is represented on the psychic side by will. Moreover we note in those cases which we are able to study in reflection that the mental occurrence which we call will is preceded by the mental process which we call reasoning.

Now, so far as we can discover by objective observation, there is no difference of kind in choice in men at different times; no difference, furthermore, between choice as shown in men and in the animal life that surrounds us. So clear is this that it appears probable that will, which in ourselves is the psychic correspondent of choice, is, in some form or other, the psychic correspondent of choice in all living forms, be they high or low; and this broad generalisation is one with which all students of psychology and philosophy are to-day familiar.

If this generalisation be well founded, the reader will agree, I think, that it is highly probable that the psychic process, which is antecedent to willing (as marked by choice),

is also of one and the same kind in ourselves and in all the animal forms which surround us.

But in our own conscious lives reasoning is the mental process which precedes choice and which determines our will, and we are thus led to hold that Reason in germ, or in more or less developed complexity, is a general psychic phenomena in the mental lives of all animals from the highest to the lowest forms.

This view is corroborated when, by a study of our inner experience, we note the indissoluble connection between our rational life and our volitional experience.

The proposition that choice is the mark of rationality would be granted without question if we were all willing to grant that all of choice, as we know it, is rational.¹ But there is no more common notion than that which leads men to say that they or their fellows often choose to do utterly irrational acts. The proposition which I maintain, that all choice is rational, is therefore very likely to be questioned, and I must beg my reader to consider for a moment my reasons for upholding such a view.

§ 4. In an exceedingly stimulating article, published in *Mind* in April 1893, Professor Sidgwick made a searching but I think only partial investigation of what he called "unreasonable action"; as his analysis is, on the whole, an almost complete vindication of the position I here take, I shall consider it at length.²

In the article referred to, which I hope the interested reader will study with care, Professor Sidgwick asks us to consider what is called subjectively unreasonable action, wider than, but inclusive of strictly moral judgments. He excludes all abnormalities that might be looked upon as

¹ Cf. Green, *op. cit.* p. 186 ff.

² The substance of this section was published in *Mind*, January 1894.

leanings away from sanity, and especially does he eliminate all cases in which men feel that they are carried away by sudden or overwhelming impulses; and this he does in order to fasten our minds upon that action which is held to be voluntary and yet contrary to a man's deliberate judgment as to what is right or best for him to do, *i.e.* the action we are here considering.

In the first place he calls our attention, by way of emphasising the importance of the subject, to the fact that writers of the most opposite schools for the most part fail to discuss cases of irrational volition altogether; but where these are considered it is found that the opposed thinkers imply, when they do not distinctly make the claim, that there is no such thing as wilful unreasonableness. This is surely a most significant fact; one which should lead us to examine with the greatest care all cases in which this questioned characteristic appears. Professor Sidgwick, indeed, proceeds a great way in this direction, but, as I shall attempt to show in the sequel, not quite so far as he might do.

1. He acknowledges in the first place that cases of so-called "wilful unreasonableness" are relatively very rare indeed.

2. He shows that in a large number of cases where voluntary unreasonableness appears to exist, the action is in reality merely action taken contrary to some general resolution which has been adopted by the agent, and is to be included in one or two great classes.

A. The first class covers those cases where the action involves no consciousness, at the time, of a conflict between volition and practical judgment; the rule being simply forgotten (*x*); or the rule being remembered without acknowledgment that the case in mind falls under the rule (*y*); or the agent suspending his rule from a temporary conviction that he has adopted it without sufficient

reason (z). In these cases, there being no consciousness of a conflict between the will and the judgment, there can be at the moment no irrationality in relation to the volition.

B. The second class covers those cases where the action involves the consciousness of unreasonableness, but only obscurely; the man sophisticates himself, being obscurely conscious of the sophistry. Here it seems to me there will be no claim that the voluntary action, to which attention is directed under the terms of the discussion, is itself irrational, for in all cases, as Professor Sidgwick acknowledges, "by hook or by crook a quasi-rational conclusion on the side of Desire will be attained." For the irrational volition, if it exist, we must look back of the act which is thus made rational, to the act of self-sophistication; and this makes the case practically identical with that specially subtle case, mentioned by Professor Sidgwick, where the agent consciously refrains from directing attention away from certain aspects.

In such cases I submit that it is possible, and so far as my introspection tells highly probable, that there is nothing irrational in such an emphasis of certain aspects through guidance of the attention. So long as the agent has not before him any consequences in practical life as the result of allowing one series of thought to play in consciousness to the exclusion of another, there does not appear to me to be anything irrational in allowing such play, nor, in fact, in inducing it by an emphasis of certain aspects which are not naturally powerful: indeed, one cannot object to such procedure without breaking down the argument for deliberation in general. Of course, if the agent realise that he is sophisticating himself, or emphasising certain aspects in a way that will lead him to recognisedly irrational action, he is in this voluntarily irrational; but it is apparent that this is at best a very rare case, among very rare cases, and

I am inclined to think that in such instances the agent does not realise this as he does it, but rather realises, *after the act*, that he *has done it*. He may in the next moment fall back into the doing of it, but in this case I do not think the claim that he realises the irrationality of the act can be made with any degree of probability on the side of the claimant when we consider the enormous number of cases of apparent voluntary irrationality that Professor Sidgwick has found no difficulty in explaining away into rationality.

3. There remains for further consideration the residuum of apparent wilful irrationality (in which class, perhaps, the last case stated is to be included), which is so very rare, but which Professor Sidgwick thinks undeniably occurs. Unfortunately, Professor Sidgwick fails here to illustrate with examples, although his habit of making clear his position by means of vivid instances is well exemplified in the rest of his article. I feel a good deal of confidence, indeed, that he is here speaking, not as the result of the observation of his own inner experience, but in consideration of what he looks upon as objective evidence; and it is therefore all the more important to examine these residual cases with especial care.

4. In doing so I must call attention to a set of cases, not mentioned by Professor Sidgwick, the obverse, in a sense, of one class presented by him, enumerated above under 2. A. (z). I refer to cases where a man, having determined upon a rule of conduct or a habit of life as rational, acts in accordance with this rule, notwithstanding the presentation of arguments at the moment which would lead him to abrogate the rule. Here very often he seems to outsiders to act irrationally, and perhaps to himself, some moments after the act, he would judge it to have been irreconcilable with a rational judgment; but at the moment of action I

feel that it must be granted that he acted with distinct rationality.

Examples are given in the lives of religious devotees who, on general principles, cast aside the claims of scientific argument in favour of the official dictates of their Church. Similar is often the case of the Utilitarian who fails to act in an individual instance as he would act if he listened to argument, and this because he declines to act in opposition to rules looking to the attainment of average happiness which he has adopted as a guide to life, because he has become convinced that they are proper. Another and striking instance is given in the life of the man whom we call obstinate or strong willed, according as his action happens to be disapproved or approved by us: he surely considers that the course in which he persists is entirely rational.

It is worth noting here that in all such cases, which at first sight appear to tell against my position but really tend to uphold it, we have clearly an emphasis of a result due to the inhibition of action rather than to the causing of action: and this is characteristic of what seem to be the residual cases of wilful irrationality, a characteristic to which Professor Sidgwick himself draws attention.

It is indeed highly probable, as he acknowledges (p. 187), that "even in the exceptional case of a man openly avowing that he is acting contrary to what he knows to be both his interest and his duty, it cannot be assumed that a clear conviction of the truth of what he is saying is necessarily present to his consciousness. For a man's word in such a case may express not a present conviction, but the mere memory of a past conviction; moreover, one of the forms in which the ingenuity of self-sophistication is shown is the process of persuading oneself that a brave and manly self-identification with a vicious desire is better than a

weak self-deceptive submission to it, or even than a feeble fluctuation between virtue and vice." Now this being granted, I am inclined to believe it will be found that all the cases of Professor Sidgwick's residuum can be subsumed under these classes which have been above enumerated: if this is not true, and there are other cases which involve subjective appreciation of willed irrationality *at the time of the act*, I myself fail to note them.

On the whole, therefore, it may be held, I think, as highly probable from a psychological standpoint that all cases which appear to be recognised subjectively as voluntary, and at the same time irrational action, are cases of illusion occasioned by faulty analysis of the mental states involved, or by failure to analyse them at all.

In many cases where "pure impulse" or the influence of habit carries a man into activities contrary to his wish, he distinctly feels that he is not responsible because he is forced to act as he does; however much he acknowledge his responsibility for *having in the past* acted (in ways which now appear irrational), through voluntary emphasis of the impulses which press him on, or the acquiescence in the formation of the habits which govern him.

In all other cases that are analysable with any clearness it appears that whilst there is recognition of an irrationality *after* the act, there is none *at the time of the act*. The illusion would therefore appear to be due to a failure to note the difference between immediate judgments of the moment and judgments in regard to past moments; and at the same time to the unwarranted assumption, so commonly made, that the elements entering into a judgment in relation to a past judgment must be the same as those which were present in making that judgment in that past.

Properly speaking, then, we cannot be said *to act* irrationally, although we can be said *to have so acted*. Similarly,

treating the moral as a sub-class under the rational as Professor Sidgwick does, we cannot truly be said *to sin*, although we all surely *have sinned* and come short of our duty.¹

§ 5. In the preceding sections we have seen—

1st. That choice, and hesitancy preceding choice, are objective phenomena.

2nd. That choice in ourselves is represented psychically by Will, and that, as choice does not differ in kind wherever it is observed, so we judge that Will is a psychic phenomenon as broad as psychic life.

3rd. That as choice does not differ in kind, so the process antecedent to choice probably does not differ in kind, wherever choice occurs.

4th. But Reason determines the psychic correspondent of the process antecedent to Will in our conscious lives: hence we conclude that Reason in germ or in complex form must be a process as wide as psychic life.

5th. This view, as we have just seen, is corroborated by our argument that Reason and Will are indissolubly connected; that all rational processes, unless inhibited, end in volition; and that all volition is, at the moment of the will act, rational.

Now we note that in our own lives choice is the mark of individual variation from the typical forms of action to which we would be led by the instincts which we have inherited, as they have been modified by our experience during life. Hence on purely *a priori* grounds we seem led to the conclusion that Reason is the psychic correspondent

¹ And after all it is this recognition of *having sinned* that brings the hopefulness of repentance. The cry, "I am sinning," if ever heard, is the cry of the bound soul, for whom there is no help within. The cry, "*I have sinned* against heaven and before thee," is of the very essence of personal moral regeneration.

of the process of variation from typical reaction, which is itself as wide as life. Life as we experience it involves adaptation, within limits, to an environment which changes ; and adaptation is attained by means of variation.

The argument which has preceded this, then, surely lends strength to the notion that reason is placed in contradistinction to instinct, because reason is identifiable with the variant influence in organic life, as instinct is identifiable with the influence which leads organisms to act in typical ways.

Our willingness to accept this conception will be strengthened if, by an examination of the nature of the variant processes, we discover that the ratiocinative processes, which are the highest forms of reason as it is represented in reflective consciousness, appear as the conscious side of the latest and most complex development of these variant processes. This proposition I shall presently attempt to establish.

But first we shall find it advantageous to enquire into the nature of variation itself, a very knotty problem indeed, one that is strictly of biological significance, but one which I think psychology is able to illumine in no small degree.

CHAPTER XVII

THE NATURE OF VARIATION

§ 1. WHAT we call diverse forces produce diverse results upon the bodies upon which they impinge: this is our description of a fact which we observe in nature.

If we make this assumption I think we must all agree that if we postulate the existence, in the dim past, of uniform undifferentiated living masses, there is no difficulty in conceiving of the appearance in them of variations, provided only they be acted upon by different forces. There is no more reason to doubt that variations would thus occur in living matter than there is to question the fact that inorganic elements will vary in reaction under like conditions of varying stimulation.

But if we find no serious difficulty in comprehending the origin of simple variation, on the other hand it is far from being an easy matter to define the modes of occurrence of this variation in complex, differentiated, and yet integrated organic matter. It is true that the average follower of Darwin writes as though, in describing certain ways in which this variation has become fixed in the race, he had solved not only the problem of the origin of these variations but had discovered the very basis of variation itself; with such matters, however, Darwin's thesis had nothing whatever to do. I have already disclaimed any such conception;

I think, however, that we may get a little nearer to the root of our difficulties if we study the mode in which organic variation presents itself to us.

If biological actions are parallel with what we know in consciousness; if mental effects are co-ordinate with physical effects in neural fields; if, moreover, biological variation be going on in our lives to-day; then that neural variation which is all-important in higher life should be evidenced by psychic variation, and the mode of this variation might not impossibly be found reflected in some mode recognisable in our conscious life. It would seem possible, then, that an examination of psychological data might throw some light upon the problem of the nature and origin of the variations that perplex us; at all events, it seems to me to be quite worth while for the biologist to turn to psychology and to enquire whether our science may not have a word to say to him on this subject.

As we have already seen, instincts are evidenced in our conscious life by "instinct feelings" which are coincident with "instinct actions"; and also by "impulses" which appear in consciousness as the result of the inhibition of instinct actions, as these are modified by experience. We have also seen that it is the highest form, the latest elaboration, of impulses which we find most distinctly presented for analysis in reflective consciousness. To these, therefore, our attention may well be given for a moment.

If we examine our mental experience in connection with those most complex impulses which we are accustomed to call the "higher" ones, viz. the ethical impulses, we are naturally led to recall in the first place the fact that they are dependent upon the existence of the organised social life in which we individual men and women are elements. Oppositions to murder, to theft, to adultery; impulses to

benevolence and sympathetic aid, would all be functionless if each one of us existed in isolation from the social fabric.

On the other hand, it seems equally clear that at least a very large proportion of the actions which lead to the suppression of, or to divergence from, these impulsive demands of social import have themselves relation to ourselves as individuals, and that it would be impossible to hold for a moment that these actions inhibitive of the social instincts would be functionless if we happened to be leading a life uninfluenced by the existence of the social fabric. Murder, theft, adultery, hatred, envy, and malice, all arise as individualistic tendencies, and foster individual efficiency; and they would be of great value to us as individuals were we not also elementary members of a social aggregate.

We are led, then, to the position that in the quasi-organic social life variation from the typical forms which are represented by the ethical impulses is determined, to a great extent at least, by action on our part as though for the moment we were individuals without close bonds to this social life.

We individuals who are elements in the social aggregate tend to vary from our social type when we act as individuals, as elements, without reference to the whole aggregate with which we find ourselves bound up.

This seems to indicate that the action of an element of an aggregate as though it were an isolated entity, without reference to its position in the aggregate, might be of importance in the consideration of variation in general; without further examination from the point of view just taken, I shall ask the reader, following the suggestion thus gained, to turn with me to an objective consideration of the subject.

§ 2. In what follows I shall attempt to indicate, as briefly

as may be, the evidence which leads me to believe that variation from typical forms of action in complex organic life is determined by conditions which lead elementary parts of an organism to act for themselves as though they were separate entities and not related to the aggregates of which they are elements.

At the risk of some little repetition I shall ask the reader to recall that in earlier chapters we considered the probable effect upon a simple aggregate of simple living masses if one element in the aggregate were affected by a special stimulus from the environment; and that we concluded that under such conditions the element affected would tend *primarily* to react upon the disturbing force as though it were an isolated element; and that *secondarily* only would this action be modified, or inhibited more or less fully, by the influence of the other elements of the aggregate.

Here, then, we have in this hypothetical simple aggregate, under such conditions, a mass of elements, a large part of which act in some definite manner, but one of which acts differently under a special stimulus; and if we happened to view the aggregation as a whole we should express this fact by saying that the action in one part varied. And it is to be noted that this variation means simply the action of one element of the aggregate as though it were without connection with the other elements. If we use the word "instinct" in the broad sense which I think should be attached to it, then we may say that the single element acts in accordance with its own simple instincts, and that in so reacting it modifies the more complex instinctive reaction of the aggregate of which it is an element.

If now we substitute the word "cell" for the word "element," in the section that has preceded this, we shall have

a description of action in the lowest forms of what we call organic life. If we agree that the connection between the cells of the aggregate has become intimate and the relations of the actions of these cells therefore important, then we see that each cell that is specially acted upon from its environment will tend *primarily* to react upon the disturbing force as though it were an elemental cell, and *secondarily* only as though it were a part of the aggregate. It follows, then, that if the disturbance from the environment be forceful, then, inasmuch as the instinctive tendency to act as an isolated element is earlier in genesis, and hence more thoroughly organised, than the instinctive tendency to act for the benefit of the whole aggregate, therefore under the conditions we are considering the instinct action as an element will become more emphatic than the action as a part of the aggregate; furthermore, if we look at the organic aggregate as a whole, then we should be led to say that this particular cell element has varied from the typical form of action noted in the cell complex as a whole. It is further to be noted that this tendency to variation will be modified by, and will be determined in a secondary way by, the closeness of the relation, the integration, between the cell-made parts.

§ 3. I think I may take it for granted that the reader will follow my thought if for the sake of brevity I make a great leap and take up now the consideration of the higher organic forms which are made up of parts which are themselves intimately integrated aggregates of cell life. Here I think we shall see that there is much evidence that variation from typical forms can be identified, to a great extent at least, with action of a special part as though it were an individual entity out of relation with the larger organic aggregate of parts of which it is in reality but one element.

In all the animals of higher grade we find, as we have

often noted, specially differentiated organs, as we call them, which are employed in different functionings.

To one special point in reference to this differential functioning which is of importance to our general argument I would ask the reader's attention.

It seems clear that in an organism made up of differently functioning cells, or of differently functioning parts formed of aggregations of cells, the differentiated parts must have come to act, where the conditions are *normal*, in a manner which is best suited to their own perfect working: this normal action, however, at the same time being suited to the maintenance, under these normal conditions, of the life of the organism to which the differentiated parts belong. Let me explain this symbolically.

If we suppose that in an organism A, formed of differentiated parts a , b , c , the normal functioning of a , or of b , or of c does not produce results favouring the persistence of the whole organism A; but that, on the other hand, in organism B, formed of differentiated parts a^1 , b^1 , c^1 , the normal functioning of a^1 , b^1 , and c^1 does produce results favouring the persistence of the whole organism B; then evidently organism A will be likely to be destroyed, while organism B will be likely to persist, and we shall have its differentiated parts a^1 , b^1 , c^1 functioning normally as they would if the organism did not exist, and yet at the same time by this very functioning bringing about certain actions in the organism as a whole, which actions will, under normal conditions, tend also to result in the persistence of this organism.

The point that I would ask the reader to note here is this, that on the whole each differentiated part of an organism under *normal* conditions acts, as it were, to its own elemental advantage: and although evidently the parts have been so modified that the action they would properly make for their own individual advantage as parts will also

be best adapted to arouse such activities of the organism as a whole as will lead to the advantage of the organism rather than the parts, still it is clear that this action in reference to the whole organism is of a secondary nature, if we may so speak.

If, for instance, the source of stimulation from the environment be mechanical pressure, then under the laws of survival certain cells of the more or less developed touch organs must tend to become so differentiated that they as individual cells will react healthily,—*i.e.* to their best individual advantage,—in answer to those stimuli which more or less indirectly bring advantage not to themselves but to the organism as a whole. In like manner will it be throughout the system with all other cells, or with all parts formed by the aggregation of cells, that have come to function in special ways.

But now let us consider what will happen if the stimuli reaching these differentiated parts should happen to be *abnormal*. Under such circumstances these parts, knowing (if I may be allowed so to speak) only of their own functioning, only of the demands upon them to react to these unusual stimuli, will tend first to act as usual as though they had no relation to the whole organism; and only secondarily will their action be modified by the influence of the other parts of the organism which are drawn into unusual functioning as the result of the abnormal action of the part first affected.

Under conditions of morbid stimulation the lungs and heart will often undertake extraordinary work; this action may be modified by the influences from the rest of the organism sufficiently to prevent disaster to the organism itself; but, on the other hand, the excessive activity may, and not infrequently does, result destructively to the system

as a whole, before this modification through systemic influences can take place. The intestines in like manner will function with excessive vigour to throw off colonies of poisonous microbes; and if the restraining influences from the organism are not effectual, their action may bring death to the whole organism through the general exhaustion caused by their efforts to function for the advantage of their own special part of the larger organism.

Of course with the increase in integration, in interdependence of the parts, the tendencies to act as parts without relation to the rest of the organism become less marked, and the influences from the organism become more quickly effectual; but nevertheless it seems clear that the influence from the organism must always be secondary, and if the stimulus to the special part be sufficiently forceful there will always be danger that the influences from the organism will not be able to hold the more thoroughly organised elemental action in check.

The actions which I have above illustrated are accommodative actions, and the capacity to make such accommodations to abnormal conditions as those described must tend to produce variations from the normal type. And the reader will note that if I am correct these variations from type are also explicable as due to the action of elemental parts of a complex organic aggregate as though they were independent of the organism, and without relation to the part they normally play in the functioning of the organism as a whole.

§ 4. And now again I shall ask the reader to make with me a great leap; to consider those actions which imply variation of individuals from the forms of action which are typical in our social life.

The reader who has been interested to examine Chapter

VII., in which I discuss the conception of the social organism, will find that I there lay especial stress upon the limitations of this conception. I argue that although we are compelled to acknowledge that social life may be found to be organic in its nature, still it is very clear that if this quasi-organic social life exist it must be of a type corresponding in integration to very low forms of individual organisms. And surely this lack in the social organism of that close integration between the individual elements that is so distinctly marked between the elemental parts of the higher animals, and which tends to limit or prevent variation in them, should lead us to expect to find in the social organism a very distinct tendency to variation from typical action in the lives of ourselves, who, though individuals, are nevertheless also elements of this hypothetical wider organic whole.

Now it is clear, as we have already seen, that in the evolution of normal individual life the primary action in response to stimuli from without upon the cells must on the whole have been subordinated to secondary actions tending to produce efficiency of the individual, in case the two were not thoroughly adjusted to the same end. In like manner, in the evolution of normal social life the response to the complex stimuli from without upon the individual element must, on the whole, be subordinated to secondary actions tending to produce efficiency of the social complex, where the two sets of actions are not thoroughly adjusted to the same end. Thus it will happen that under normal conditions the individual will act as though he had only his own personality to consider, and yet at the same time this action of his will tend to the advantage of the social fabric.

But it is also clear that where conditions in our social environment are not normal, then if our supposi-

tions be correct we should expect to find forceful stimuli tending to produce action in individuals still for their own advantage, but now as though they were disconnected altogether from the social aggregate. This involves variation from typical social reaction, and this tendency to variance from the normal life of the social type should be expected to be the greater because of the slightly integrated form of this social organism of which we individuals are the elements.

I think it will be apparent to the reader without argument that we do show this tendency to variance from the social type which is marked out by our ethical instincts, and this variation will, I think, be found in great measure to be identical with our action as individuals, as this action would be noted if we were totally isolated and not affected by social demands. Under the sudden and overwhelming appearance of extreme danger, as in the case of earthquake, the man will cower or flee, in answer to his individualistic self-preservative instincts, which are earlier in genesis and hence more thoroughly organised, who would be not at all slow under ordinary circumstances to act in answer to his social instincts for the protection of his tribe, which instincts are later in genesis and less thoroughly organised. A man if placed at bay may kill his comrade in self-preservation although ordinarily he would avoid such an act by means of restraints, all of which have social import.

In other words, here again we find that variation from typical forms is determined by action of the elements (ourselves in this case) of an organic aggregate (the "social body") as though they were isolated and had little or no dependence upon, or relation to, the aggregate as a whole.

§ 5. I shall attempt to show in what follows¹ that con-

¹ Chapter XVIII.

scious variation conforms with the type of actions just described; but I cannot do this without very technical discussions which would not be in place here: moreover, it would imply too great a break in the course of our argument did I stop now to attempt to explain complex cases of reasoned variation which may not seem at first glance to fall within the general formula here suggested: I shall therefore content myself with one example to illustrate the point I make.

A man has grown up under certain influences, inherited and acquired, which lead him to act in certain determinate ways under the normal stimuli of life; attached to these actions, or coincident with them, are settled trends of thought which make up what we call his belief, let us say, in a governing God, a personal being, having the characteristics of humanity, with all its captiousness, vacillation, passion and vengefulness. Such was the God of the early Hebrews. But this man is affected by the emphatic presentation to his mind of some event in life, some fact in nature, some thought uttered by his companions, which makes him aware of his belief, of his typical trend of thought, in the very fact that in doubt this typical trend is disturbed. Doubt may be of but an instant's duration; but doubt, and variation from the typical trend of his thought, at all events it must be to raise into his consciousness the fact of his former settled belief. Now this variation from his typical trend of thought, from his belief, may in the next moment be inhibited, his typical trend may be practically retained: or, on the other hand, there may result a long series of reasonings as we call them, disturbances and readjustments of conception, until he finally recasts his belief as to the nature of his God, comes to conceive Him of nobler nature: or perhaps he throws the old conception off entirely, gaining a new typical form

of thought, a new belief in a Universe without a guiding Deity ; which new belief may remain or may be again disturbed and forced to vary in the manner described above.

In the beginning and ending of this series the process of variation through reason which I have been describing is pretty clearly exemplified ; but many a reader will find his mind fixed upon those intermediate stages of shifting questioning, of anxious searching, of painful perturbation, which follow upon the initial disturbance of his belief, of which belief doubt alone brought him realisation.

Yet these intermediate stages of reasoning, and mental striving, themselves present also all the marks of the process of variation I have been describing ; for after each variation, each readjustment of thought, a new typical mode of thought is formed, one which indeed may exist but for a moment, which may be overturned in the instant following by the emphasis of some new thought-element, through some other judgment from newly appearing premises ; but in each such case we have a balance overturned by the emphatic action of some element of the complex, which but for that emphasis would have and hold the essential nature of a belief.

§ 6. At this juncture it is important to note that if the hypothesis here presented be correct, then, whatever be the appearance, all of variation is itself determined by instinctive reaction. In the study of organic life we are dealing with organised systems existing within other organised systems. A typical reaction of an organism is the reaction of the whole system and gives us a typical instinct action ; while divergence from typical reaction, under the view here presented, is due to the emphatic reaction of a subordinate system which is part and parcel of the whole organic

system, in other words is due to what we may call a partial instinct action.

What we know as divergence, therefore, is determined by differences in breadth of the organic systems involved, to the fact that the instincts which relate to the whole individual organism, or to the developing wider social organism, are complex instincts built upon simpler, partial, instincts which already existed before the more complex instincts were evolved. And those earlier-formed instincts being more thoroughly organised tend under emphatic stimulation to react more quickly and accurately than the less thoroughly organised and more complex instincts; they tend to become emphatic upon occasion, and thus to disturb the balance of reaction involved in the functioning of the wider instincts of later genesis and less thoroughly fixed organisation which have broader significance.

The quick reaction which determines variation is thus seen to be itself an instinct action, but an instinct action of lower grade, of earlier genesis, of more thorough organisation, and hence capable of quicker response to stimulation than is the case with the less thoroughly organised, slow acting, typical instinct, of the organism as fully developed, and which we appear to modify.

We thus reach the important conclusion that all of reasoned action must be referred back to instinct action. But, as we have seen in the closing paragraph of Chapter IV., all instincts appear as modes of that simplest of all phenomena of activity, the reaction of a living cell to the stimulus received from its environment: hence finally *all reasoned actions must also be referred back to and appear as modes of that simplest of all phenomena of activity, the reaction of a living cell to the stimuli from its environment.*

Mr. Herbert Spencer in his *Principles of Psychology*, vol. i., accounts for reason as a development of instinct, even as he claims that instinct is a development of reflex action; the differences in both cases, he thinks, are due to the relative complexity of the phenomena observed. As he calls instinct "compound reflex action," so under his view he would be warranted in calling reason "compound instinct."

He thus practically asserts the existence of a fundamental identity between reason and instinct. But, as the reader will readily perceive, the relation which I above suggest as adequate to account for the bond of unity between instinct and reason cannot be held to be an identity in the same sense of the word. His explanation does not seem to me to be adequate.

§ 7. It appears, then, that the distinction between instinct and reason is indeed not really fundamental; that the apparent difference is due to the complexity of the organic forms which we study; that both refer back, as I have already said, to the strife for persistence of life in the simple protoplasmic unit; that both are referable to what Professor Patten would have us call the "economy of effort."

But, on the other hand, the distinction is clearly of importance, for only in imagination can we refer back to this hypothetical simple unit; as we know life in its biological aspect we can examine only more or less complicated organised aggregates marked by systems within systems of integration; and in these complex aggregates the reaction of the systematised part, out of relation to the reaction of the whole organism, is of very notable significance in the process of development; and this warrants us in preserving the distinction between instinct and reason,

as we do the distinction between typical action and variation, notwithstanding that variation may be referred back in the end to the same "economy of effort" to which typical reaction is referred.

The distinction, then, between instinct and reason, as objectively viewed, is as clear and positive as the distinction between typical reaction and variant reaction; as marked as that between normal stimulation and abnormal stimulation, to which typical and variant reactions respectively correspond. It can in no sense be said, then, that the boundary between instinct and reason is indistinct; and nevertheless it is true that as in our complex environment it is scarcely possible for stimulations to be altogether normal, so it is true that reactions of complex organisms to stimulations can theoretically never be wholly typical, but must always in some measure be influenced by variation. In other words, instinct in our complex life must always to some extent be touched with reason.

In relation to our own consciousness, also, the distinction between instinct and reason is as clear as when we view the subject from the biological standpoint.

All instinct feelings influence the consciousness which is correspondent to the activity of that neural system by which the instinct actions are determined. Some few only of these instinct feelings, however, become prominent in that field of attention which we are able to hold in reflective consciousness.

So also is it with reason. All variant reaction to unusual stimuli has correspondent with it some measure of reason, but much of this reason affects only what we call the field of inattention: relatively little appears in attentive consciousness.

Still on the whole, as typical reactions of the whole organic system tell of the experience of stimulation during indefinite ages of the past, while variant actions tell of the experience of an individual life; so the effect upon the field of attention from instinct actions is, as we should expect it to be, much less emphatic on the whole than is the effect from reasoned processes.

§ 8. Reason thus represents the influence in organic life which breaks down our complex inherited tendencies; the influence which leads us to vary from typical forms of action as determined by instincts of broader scope.

If this be true, then it becomes very clear why it is natural to look upon instinct and reason as indissolubly connected phenomena, and yet as phenomena which must be placed in contradistinction. To speak of them as standing in opposition, as the word "opposition" is usually employed, is perhaps incorrect; the basis of the distinction being merely this, that they exclude one another when under diverse conditions they might appear in consciousness at the same time in relation to the same set of external stimuli. It is in no sense true that he who acts under the pressure of instinct acts irrationally: it is true that he at the moment acts non-rationally, although his action as viewed in retrospect may appear to be entirely rational; for variation occurs through unusual emphasis of what we recognise as instincts as well as through the emphasis of some specific set of acts that seem on their face to have no connection with instinct.

§ 9. It is not unusual to find another distinction made between instinct and intelligence, starting also as we have done with the observation that choice is a characteristic of non-instinctive activities. It having been noted that the

hesitancy that goes with choice is lacking where the acts are instinctive, this lack of hesitancy has been made the basis of a temporal distinction between instinctive and intelligent acts, it being held that the reactions tend to become instinctive as they tend to accuracy of adjustment and to immediacy, and that they "lapse" from intelligence *pari passu* with the decrease of hesitancy.

In this connection we note that if the word "intelligence" be used here to include such forms of reflective consciousness as Professor Morgan speaks of as "perceptual intelligence," the distinction under consideration cannot properly be made, for many recognisedly instinctive acts are accompanied by this form of intelligence. The distinction can only be defended in case the word "intelligence" is meant to cover what I speak of as "reason." Then it is true enough in a rough way that actions become instinctive *pari passu* with the lapse of "intelligence."

But even then it cannot be maintained that this holds except in this rough way; and, furthermore, the distinction on a temporal basis seems to me to be unavailable in a strictly scientific treatment of the subject, for the reason that there is, as we have already seen, a marked difference in immediacy of reaction between different sets of instinctive acts of the same organic grade, this temporal unlikeness being determined partly by differences in the complexity and mode of development of the several instincts, and partly by the fact that some instincts must act quickly, and others slowly, if they are to function to the best advantage of the organism in which they appear.

The distinction that I propose seems to me to avoid the confusion connected with these difficulties by emphasising the difference between the instinct actions as being the typical actions of organisms, and reasoned actions as due to the disturbance of these typical actions by the hypernormal

action of elements that go to make up organisms; the distinction between instinct actions on the one hand and elemental variant ones on the other.

Some reader who has become accustomed to the temporal distinction just noted may not impossibly think for a moment that he has discovered a defect in my argument in the fact that I treat of reasoned action as variant action, and describe variation as determined by quick reaction of an element to a strong stimulus before there is time for the whole organic system to react. My critic may say that this very quickness of reaction to which you thus refer reason and variation is the mark of instinct: and indeed this is true. But what at first appears to him to be a difficulty is in reality a necessary implication of the thesis I present: in fact I am sure it will not appear to the careful reader as a difficulty at all; for he will have noted that, as I have already said, the quick reaction which determines variation is itself an instinct action, but an instinct action of lower grade, of earlier genesis, of more thorough organisation, and only on this account capable of the quicker reaction than that of the less thoroughly organised, slower acting, typical instinct from which we vary. It is not this special quick reaction, however, which we consider when we note a case of variation, but the whole process of this reaction and its resultant, and it is this process that seems slower than the response of the instinct action of the complex system when viewed by itself.

§ 10. In closing I may properly speak of one more point, viz. in reference to the notion that intelligence, or reason as I call it, involves a new factor in variation. Professor Lloyd Morgan, for instance, says:¹ "With the advent

¹ *Habit and Instinct*, p. 271.

of effective consciousness not only a new factor but a new method of evolutionary progress is introduced." But where, I would ask, does this new factor make its entrance in the biological series? Under the theory I am here defending there is no moment of organic life which involves adjustment to stimuli that are in any degree abnormal, which does not involve on its psychic side reason, in simple or complex form; and I fail to see that any indication is gained in the objective study of life around us to uphold the notion that such "an advent of effective consciousness" ever takes place. Wherever there is variation from purely instinctive reaction, whenever there is adjustment of means to end and choice of means or end, then, if I am right, reason is present on the psychic side, although, as we have seen in § 7, this may not come into clear consciousness. It seems to me to cloud the questions at issue in a very undesirable way to make the assumption that the choice and the variation come to differ in kind at some point as they rise in the scale and take on that specially complex form which we are able to hold in our own reflective consciousness.

CHAPTER XVIII

I.—THE FUNCTION OF REASON

§ 1. THE study of reason in connection with instinct in the preceding chapters has already shown us the essential importance of the former as well as of the latter in biological development. We have argued that reason is our name for the process which in an objective view appears as organic variation; that the ratiocinative process which we recognise as the latest development of reason is the psychic coincident of the highest elaboration of the variant capacity within us; that reasoning is our name for the conscious side of those activities of our nature which enable the organism to depart from typical reactions, so far as the beginnings of these variations produce an effect in consciousness; that reason is therefore the psychic coincident of that capacity within us which is all-important in the adaptation of life to an environment which in its very nature must be ever variable.

If, on the one hand, without the typical reactions of instinct we cannot conceive of continued organic existence, so, on the other hand, without variations from typical forms, and reason, we cannot conceive of individual adaptation and of organic development.

Reason is indeed the expression of an opposition within us to the performance of our entire function in the wider

organic life in which as the result of inherited traits we appear as elements: but, on the other hand, it is the basis of all our hope for the production of a higher organic life than that which now exists, one which shall bring our lives into more harmonious relation with our ever-varying environment. But for the ability to accommodate themselves, organisms are liable to be overwhelmed by special conditions in their environment: with this ability developed within them they may chance to produce a favourable variation which will render the part of the race they represent better fitted to survive than others which do not vary in the same manner or degree.

These facts being granted, the important problem to which we referred in our opening chapter at once presents itself to our attention in connection with the consideration of these two forces in our lives: the problem of the determination of the balance which should be maintained between these two great influences acting upon organic life: the problem as to the relative weight which should be given to reason and to instinct in our conscious existence. This problem is the more important to us because, as we have argued, a tendency to wide variation exists in the higher organic life, a special governing instinct, the religious instinct, having been formed, so far as we can judge, especially to regulate this variation.

Before we can attack this problem profitably we must make clear our conceptions in a number of directions. This can best be done in connection with the technical treatment of the functioning of reason in relation to instinct, which we deferred from Chapter XVII., and to which I shall now turn.

II.—THE FUNCTIONING OF REASON

Whilst I think it necessary to completeness to consider here the functioning of reason in some detail, I may perhaps here warn my reader that the analysis we are about to make will not be easy reading, if I may judge from my own experience with it, and to advise him, unless he is exceptionally interested in psychological discussion, to pass over the remainder of this chapter, in which I shall attempt to show by a further examination of the rational process that theory and experience corroborate the views already presented.

§ 2. In what has preceded this, having been led by various arguments to hold that reason is the capacity within us that determines variation from typical reactions, we have also been led to see that where variation occurs some part of an organic system acts to express its own special instincts, the instinct actions thus produced being out of harmony with those instinct actions of the whole organic system which are normal for this system at the moment of stimulation: in other words, variation is due to an emphasis of the action of a part of an organic system, so that the part tends to act for itself as though it were an independent entity and out of relation with the whole organic system of which it is an element. I shall attempt here to show that the analysis of those conscious states which in our experience are antecedent to the action of variation shows them to be of a nature consistent with this view.

As we have also seen in our previous studies, instinct actions, so far as they affect our mental life, are represented in consciousness by "instinct feelings," and, whenever the instinct actions are inhibited, impulses present themselves in consciousness. It is apparent that in a study of the processes which precede the act of variation we do not

have to consider the "instinct feelings" coincident with the instinct actions; they are part and parcel of the act, and have nothing to do with the genesis of the act which we examine in any special case. The impulses due to inhibition of instinct actions as modified by experience are, however, clearly antecedent to the act, and we must therefore take them into consideration in the study of rational process.

If instinct actions, incipient but inhibited, give rise to impulses in consciousness, and if variation is due to the expression of the instincts of a part acting out of relation to the instincts of the whole organic system of which the part is an element, then, when variation seems to involve any previous effects upon consciousness at all, *i.e.* when it is not produced immediately as the result of a very forcible stimulus, we should expect to find it preceded by the emphasis of certain impulses peculiar to the part, and which are out of normal relation to the body of impulses appropriate to the whole organic system.

If this view be correct, then we should expect to find the direct mental antecedents of variant action to be, in a general way, quite of a kind with the mental antecedents of typical action; the difference, however, lying in this, that in the case of variant action there would arise (and usually out of the ego, the field of inattention) an emphasis of one impulse, only part of the impulse system, which emphasis would determine the variant action. This is a conclusion thoroughly in accord with our discussion in the preceding chapter, where we argued that "all of variation is determined finally by instinctive reaction, divergence being due to differences of width and complexity of the organic systems involved." I shall endeavour to show that this expectation is fulfilled.

§ 3. All psychologists nowadays agree that impulses do

not arise within us spontaneously. We know full well that we do not act unless we are stimulated directly or indirectly; that our organisms are objects which Nature uses for the purposes of transforming certain kinds of energy which impinge upon us into energies of other types which are spent in reaction upon our environment.

If this be true, then, for the basis of the emphasis of these partial impulses connected with variation we must look back of the mere impulses which would lead to action, to the stimuli which determine these impulses: and here we find ourselves dealing with the essential processes of reasoning. We must look back of the inhibited instinct action to the stimulus which arouses this instinct action, or, in psychic terms, back of the conscious impulse to the presence in our mental life of a powerful stimulating idea.

This stimulating idea may present itself suddenly to consciousness. Where this happens it is usually because our organisms have been directly stimulated from without, and then the stimulating idea seems to be traceable to the effects of sensation, or rather to the effects of the perceptions which ensue upon the rise of sensation in consciousness. In some cases of this type, however, the stimulating idea may arise from some obscure process within ourselves which is not assignable to any stimulation from the world around us, nor to perceptions aroused by such stimulation: we then assume that it is due to some combination of influences within ourselves, none of which has availed to affect the field of attention. In all such cases the stimulating idea results in immediate instinctive reactions which are marked in consciousness by "instinct feelings," or at most, if any hesitancy is involved, by a merely momentary pressure of the impulses caused by the momentary inhibition of the instinct actions. In such cases we scarcely feel that we govern the act, we do not consider that we distinctly

will to do what we do ; rather do we feel that we are forced to the action by stimuli over which we have no control.

There are many cases, however, in which we do feel that we have control, in which we feel that we use our reason and that we will the variation ; these are the ones in which the processes antecedent to variation become prominent, and the ones to which the greatest interest attaches in our mental life : I wish to show that even in these cases the process is fundamentally the same as that already described.

§ 4. All men and women of active mind find in their experience constant trains of thinking, note the continuous presentation of a stream of mental objects which are constantly modifying, and being modified by, the apperceptive systems¹ in which they appear. These mental objects are more or less real for us ; that is, they fit in more or less completely with the whole mental life of the moment ; they are more or less stable in relation to what we call the apperceptive systems which form the body of the experience to which these objects are attached, or from which at times they seem to obtrude, if we may so speak. It is from amongst these mental objects, these ideas, that arise those efficient ones which stimulate us to the activities which result in variation.

When a mental object, an idea, is real for us it is such because it forms part and parcel of a relatively stable apperceptive system which is existent for us at the time under consideration. This apperceptive system, which is of psychic significance, must be supposed to have corresponding with it on the physical side a system of typical reaction which is stimulated by the activities corresponding with the apperceptive system.

Variation from such a typical system of reaction, by the

¹ Cf. Stout's *Analytical Psychology*.

emphasis of an action which is partial in relation to the activity of the system as a whole, can occur as the result of action within the system (which alone we are now considering) only where some idea within the corresponding apperceptive system becomes emphatic at the same time that it becomes an idea stimulating to partial action. This can only occur when the stimulating idea, as the result of its own special development, fails to remain stable as part and parcel of the apperceptive system existing at the moment of stimulation, when it fails to be altogether real *in relation to that system*. The process antecedent to variation, therefore, so far as it is represented in our world of ideas, is determined by the presence of an idea which is unrealised and which is recognised to be unrealised.

There are cases in which the stimulating idea is recognised as being not only unrealised *but as being unrealisable*; i.e. when it fails of assimilation with the newly arising apperceptive system which its special emphasis determines; when it fails to become real in this new apperceptive system. This state of mind we know as a *wish*: but with it we have no direct concern here, for a wish pure and simple leads to no variant action.

There are other cases, and these are many and most important for our consideration, where the stimulating idea is recognised not only as unrealised *but as realisable*, i.e. when a new apperceptive system arises in consciousness as the result of the special emphasis, in which new apperceptive system we feel that this idea might become real, and without which realisation this newly appearing, possible, apperceptive system fails of completeness.

It is apparent, therefore, that the process anterior to variation, wherever it rises into consciousness, must involve

the appearance of an idea which is recognised to be realisable but not realised in some newly arising apperceptive system. But the presence in consciousness of an unrealised yet realisable idea is, as we have already seen in a previous chapter,¹ the state which we designate as Desire.

It is apparent, therefore, that theoretically the mental state which we call desire is the one we are most concerned to consider in relation to the origin from within ourselves of conscious variation; and this accords with general experience, for it is a generally acknowledged fact that desire determines impulse, and desire and impulse determine will, will as we have seen being the psychic correspondent of the act of variation.

But desire, as we have just seen, is the effect in consciousness of the emphasis of a special element of an apperceptive system, which emphasis corresponds with the emphatic partial action of some element of a system of typical physical reaction, which thus occasions variation. It thus appears that the mental process in cases of variation is only different from that in cases of typical organic reaction in that it stimulates to a partial instinctive reaction and not to the reaction of the whole system. This is what we should be led to expect as the result of our consideration in the seventeenth chapter of the nature of variation from an objective standpoint.

The emphasis of the stimulating idea in desire is that which marks the direction of variant action, and for the basis of this emphasis we must look to the process of reasoning which, as we shall see (§ 7 below), when analysed, in those forms in which it is clearly grasped in reflection in the process of ratiocination, appears as a process of strengthening and rendering persistent some specially stimulating idea.

¹ Chapter XIII.

III.—DESIRE—REASONING—IMPULSE—WILL

§ 4. From what has immediately preceded this, and from our discussion of the nature of impulse in Chapter XIII., it appears that the voluntary act which produces variation is the result of a determination, from the ego, of the higher efficiency of an inhibited instinct producing an impulse, or of one of several opposed instincts represented in consciousness by opposed impulses; but that, inasmuch as the impulses are mere marks of the inhibition of instinctive efficiency of the system involved, for the cause of this action which emphasises one impulse we must look to the process which is antecedent to the appearance of the impulse in consciousness. This antecedent process we have seen to be marked by the rise of desire, and the action of reasoning which, as we have argued in Chapter XVII., seems to involve the strengthening of some partial idea within an existing apperceptive system.

It will not be denied, I think, that desire is normally followed by instinctive reaction, or by an impulse to action in case there is an inhibition of instinctive reaction. Where desires are balanced, reasoning steps in and determines the efficient resultant by rendering one desire stronger, and strengthening the impulse corresponding with it. Reasoning, to be sure, does not always appear as strengthening desire: reasoning often seems to move in trains, as we say, from one strengthened idea to another; its outcome in desire, in impulse, and in action being absent, or lost sight of when it occurs. But where desires clash, and are not influenced by stimuli from without, but are determined by influences from within the ego, then it is that reasoning steps in to determine the resultant, emphasising one of the opposed desires which determines the act of will.

It is of course true that there are few cases where this whole course is run in consciousness. I may find myself willing to do a certain difficult task without having been conscious of the desire, or of the impulse, or of the reasoning which, had the conditions been appropriate, would have been clear in my consciousness. So I may feel the clash of opposed desires and then find the act accomplished with no sense of having willed, and little appreciation of an impulse leading to the act, or of the process by which it was strengthened. So I may note the reasoning process and give no attention to desire, to impulse, or to the voluntary act; or I may note the clash of opposed impulses and give no heed to desire, or reasoning, or the will act.

I may attend thus to one only of the four mental processes under discussion, or I may attend to more than one and less than all, or I may attend to all; but I think it must be taken for granted that in all cases of volitional variation the course of mental activity is the same, in all cases the desire, the impulse, the reasoning, and the will are, in a sense, one act.

This brings us back to the position already reached by our argument in Chapter XVI., viz. that in varying consciously we always act rationally, through the emphasis of some impulse element in that system of impulses which determines our standard of the moment; and not only that we always thus in acting voluntarily act rationally, but that we always act aright, *i.e.* in accord with the order of impulse efficiencies of the moment; the irrationality, the error, of our act appearing only after the fact, when we compare the impulses which governed us with the relatively permanent order of impulse efficiencies of the moment of reflection.

When we consider our acts of the past, or the acts of

others, we judge them to be reasonable or unreasonable so far as they do or do not harmonise with the hierarchy of the desire-impulse efficiencies of the moment of reflective consideration. Where the efficient desires are egoistic it seems unreasonable to act disinterestedly; where they are altruistic it seems equally unreasonable to act with self-interest as our aim. For instance: where I have laboured hard and have earned a needed holiday, and where there are no duties to prevent, it seems unreasonable not to choose the greatest pleasure I can think of that is not vicious; but if there are urgent altruistic duties to perform, it seems in like manner irrational to leave them aside, and to seek for pure pleasure which is not demanded in the interests of health.

§ 6. So much attention has been given in later years to the analysis of the act of will, and of the feelings of effort which often go with this act, that I think it may be well to express the thesis I am maintaining in other terms which bear some reference to these discussions.

We may conceive the existence of the mental life of a psychic element corresponding to activity in a physical element; this mental life is a psychic whole, and it seems necessary in such a case to conceive the psychic correspondents of stimulation and of reaction as forming one psychic state. Moreover it seems to me that we must conceive of complex psychic systems in the same way: as the whole physical system at any one moment must be conceived as a whole in a certain balance of reaction, so the corresponding system of consciousness must be conceived as a psychic whole in that moment. But in objective reflection (which is itself a unified pulse, such as we have just described) it is impossible for us to limit our thought to any one moment; we must take into our field of view

more than a single psychic element, more even than a single complex psychic unit: we are thus forced in reflection to view readjustments of psychic systems.

In reflection we thus find certain activities, which we call the psychic correspondents of stimulation, held apart from certain activities which we call the psychic correspondents of reactions to these stimulations. The separation is justified indeed in descriptive psychology, for we there consider special moments, and in some of these the psychic unit of activity is markedly related to stimulation of the organic system, while in others it is markedly related to reaction of the system upon the environment. Such a distinction is strengthened by the anatomical differences discovered between the receptive neural systems and the reactive neural systems. But the neural activity of the receptive organ is as truly a state of reaction as the last observed contractions of a muscle.¹

Our bodily systems, the psychic correspondents of which we view in consciousness, are in an objective view as a whole, or in part, but the means of transformation of physical forces into many forms of activity. As we view life we note these totalities of reaction, and we call them instinct actions. In a system of instinct actions, if one part becomes abnormally emphatic, a readjustment of the total system is compelled, the result being the production of a new system; and this when objectively viewed is a variation. Subjectively speaking, if I am correct, this variation involves an act of reason. When it produces an effect upon consciousness, it involves certain inhibitions which themselves involve pain: the total state of the psychic system—the feelings corresponding with the emphasised instinctive

¹ Compare Herbert Nichol's very clear argument in reference to this in his article, "The Psycho-Motor Problem," published in the *Am. Journal of Insanity*, 1897.

activity, and of the activities readjusted, and of the painfulness of those inhibited—give us what we speak of in a broad way as the phenomena of conation.

In our complex life we are able to note certain portions of the psychic stream in which the conative aspect of the moment seems to be identified, to a great extent at least, with the sensations arising as a result of the activities of the bodily organs which express the will act of the moment. To these Professor James has given much prominence in his valuable studies; but, as is usual in such cases, less able minds have fallen into the error of misconceiving the doctrine he has taught, and have interpreted him as teaching that voluntary feeling consists of the feelings of *muscular* activity only. If I understand him correctly I do not believe that he would disagree with the main statement above made. It is true that remembrances of these special feelings of activity are of great importance in our voluntary life; as Professor Royce says, "we can directly will an act only when we have before done that act"; but evidently that is because desires and impulses imply experience: the idea not realised, before it can become realised, before it can become desire and serve as the basis of voluntary variation, must be thought as realisable, and that implies previous experience.

If this view of the nature of conation be correct, evidently there must be many forms of conation. There is conation in the mere cravings, where no clear idea of the basis of the systematic disturbance is presented to mind; in the desires, where an objective idea is presented to mind as realisable and yet unrealised, and where we set ourselves over against it, the emphatic tendency being part of us;¹

¹ In the act of volition the effective impulse becomes absorbed as part of the ego, whilst the ineffective impulse is detached and appears as an object apart from the ego.

in the impulses, where the idea unrealised yet realisable is one related to motor readjustment; in the act of will which determines choice, due to an opposition of desires or impulses as noted in the judgment "I will try."¹

This special aspect of conation which we speak of usually as volition is not necessarily involved in desire as some would have us think, for, as Mr. Shand has shown,² desire may occur without volition, as where we say, "If he is there I shall see him, for I desire to do so"—although it may also occur with volition where we say, "If he be there I will see him, as I desire to do so." The act of will proper is a special case of conation which, as Mr. Stout points out, always involves a judgment and a belief that we will try to realise the unrealised, and that implies a sense of an obstruction to be removed.

§ 7. We have held above that our variant action is determined by the appearance of especially efficient stimuli, which lead us to react as though we were isolated elemental parts, and without dependence upon the forces which would guide us if we acted exclusively for the preservation of the species, or for the maintenance of the existence of the quasi-organic social body of which we are elements.

We are led to this view especially because we seem to be able to identify reasoning processes with the highest elaboration of the emphasis of environmental stimuli upon the individual who reasons.

If this thesis be correct, the variation in complex organic bodies is determined partly by the degree of integration existing between the members of the aggregate, and partly by the force of the stimulus which reaches the element from its environment; this latter being the efficient factor.

¹ Cf. Stout, *Mind*, N.S. No. 19.

² *Mind*, N.S. 23, p. 297.

Now we find in our highly differentiated life that in great measure the process of reasoning is that which determines our revolt against what we recognise as instinct,—our variations from the ancestral type; it seems highly probable, therefore, *a priori* that we shall find ratiocination to be the conscious side of the latest development of the elemental variant process.

As we all know, there exists in all organisms, to speak first of the physical aspect, a balance of activities fitted to answer to environmental conditions; and furthermore (α) it seems clear, as we have shown above, that if one element of a complex organism alters its activity in consequence of influences from without itself, this one alteration of one element will tend to effect alteration of the relation between the actions of all the elements of the organic system to which the changing element belongs. Furthermore, (β) if this one element's tendency to alteration of the relation of its activity to that of the organism *persists* with sufficient strength, there may result a variation of the action in that organism from its ancestral type. Now evidently this course of action must have its correspondents in the mental life that is coincident with the action, and I think that this same process can be shown to be effective in the higher mental life as we experience it.

In correspondence with the action described under (α) above, it seems clear to me that if, in any case, one psychic element in a mental complex becomes hypernormally effective, it will tend to restrict the natural psychic development of the mental complex to which it is attached; this natural development which is thus restricted being determined by inheritance or individual adaptation. In other words, this action will tend to overpower impulsive or quasi-impulsive leadings of wider scope in favour of elemental variation.

This whole process on the physical side is determined, as appears above, by the persistence of the activity of some one physical element, and this persistence in turn may be held to be determined to a great extent by the *reduplication of the stimulus to action in an organ that is prepared to react efficiently*.¹

In the region of the correspondent mental development this means the reduplication of the stimulus to the recurrence of the *idea*, which therefore becomes persistent and effective.

But on the psychic side the latest elaboration of the process of becoming persistent is apparently the same thing as the process of ratiocination. It consists in this—

It being recognised that *a* leads to *x*, and that *b* leads to *a*, it results that whenever *b* occurs, *x* follows, as happens also when *a* occurs. Hence the process of identification of the issues of *a* and *b* in *x* tends to a duplication of the stimulus to the resultant *x*, and hence tends to the *persistence* of *x*.

But this process of the identification of the issues of *a* and *b* in *x* is the basis of the syllogistic form to which all ratiocination is reducible, viz. if *a* then *x*, if *b* then *a*, if *b* then *x*.

This argument, therefore, leads us directly to the statement that *ratiocination is the psychic aspect of the latest elaboration of the variant principle within us*.

The reader will observe that as a result of this study we have in the last section arrived at the conclusion we looked forward to reaching at the close of Chapter XVI. after we had studied the nature of reason and had found ourselves led on *a priori* grounds to the conclusion that Reason is the psychic correspondent of the process of variation from typical reaction.

¹ Compare Professor J. Mark Baldwin's doctrine of "circular activity."

§ 8. Let us repeat the summary of § 5 of that chapter, and then attempt to carry the argument a step farther. We have seen—

1st. That choice, and hesitancy preceding choice, are objective phenomena.

2nd. That choice in ourselves is represented psychically by Will, and that as choice does not differ in kind wherever it is observed, so we judge that Will is a psychic phenomenon as broad as mental life.

3rd. That as choice does not differ in kind, so the process antecedent to choice probably does not differ in kind, wherever choice occurs.

4th. But Reason is the psychic correspondent of the process antecedent to Will in our conscious lives; hence we conclude that Reason in germ or in complex form must be a process as wide as psychic life.

5th. This view is corroborated by our argument that Reason and Will are indissolubly connected; that all rational processes, unless inhibited, end in volition; and that all volition is, at the moment of the will act, rational.

6th. But choice is the mark of variation, and in consideration of what has preceded, we are led, on *a priori* grounds, to the conclusion that Reason is the psychic coincident of the process of variation.

This conclusion is verified when we consider the nature of organic variation, for we find that variation involves the emphatic action of an element of an organic aggregate, so that it functions as though it were more or less disconnected from, and independent of, the whole of which it is an element. Furthermore, as we have just seen, Reason, as we know it in the highest processes of ratiocination, acts by the emphasis of some psychic element in such a way that it results in alteration of that flow of thought which would have normally appeared had this emphasis been lacking;

and we are led to hold that "ratiocination is the psychic aspect of the latest elaboration of the variant principle within us." Thus the suggestion with which we began, that Reason is the psychic coincident of the process of variation, is corroborated.

§ 9. We now bring to a close this brief study of Reason ; unexpectedly brief, some may think, in consideration of the many pages given to the study of Instinct. To one who has followed the course of our thought, however, it will appear natural that greater space is given to the consideration of Instinct than to the study of Reason ; for, as we have seen above, Reason in a final analysis appears as a special development of Instinct, determined by the complexity of the integrated systems which are united in our wide organic life : variation, which Reason effects, being determined finally by instinctive reaction of parts as though they were isolated from the whole entity in which they appear as parts ; divergence being due to differences in width and complexity of the organic systems involved, and to the fact that complex instincts are built upon, and out of, instincts of simpler form, of earlier genesis, and of more thorough organisation ; these simpler instincts reacting more quickly to hypernormal stimuli than the complex instincts are able to.

Moreover it is to be noted that Reason is recognised as a general and subjective process : Instincts, on the other hand, being usually separated into classes by the marked differences of objective manifestation, naturally require a more detailed treatment than the general process in Reason.

With this apology I turn to the discussion of certain relations between Instinct and Reason which are of interest and importance.

CHAPTER XIX

SUMMARY

I HAVE promised in the opening of the sixteenth chapter to present to the reader who is not familiar with psychological technicalities a condensed statement of the course of our thought in relation to Reason; and inasmuch as our argument has been long and discursive, I think even those who are thoroughly versed in the language of psychology may be glad at this juncture to consider the main conclusions we have reached in clear form, free from illustrations and discussions.

I

Organisms are aggregates of living elements, or of complex living elementary parts, which are so inter-related that where any stimulus calls for a reaction in one element or part, the stimulus must necessarily affect all the other elements of the system to which the stimulated part belongs; and, on the other hand, the reaction to this stimulus must be affected by the relation of the other elements of the system to the one that is stimulated. The effect upon the other elements from the one stimulated, and from the other elements upon the one reacting, may be indirect, immeasurably small, obscure, but it is a corollary from our concep-

tion of organic relation that these effects must exist within the limits of the system which is organically connected.

II

There are two results from this postulate, which are of great moment in all organic development.

A. Where the stimulus which reaches a special element or elementary part of an organism is *normal* for that part, is one to which the part and the system are fully capable of reacting, then while on the whole the element or elementary part which is stimulated will tend to react to its own readjustment, nevertheless it will also at the same time tend to act to the peculiar benefit of the whole organic system, of which it is a part.

B. Where the stimulus which reaches a special element or elementary part is *abnormal* for that part, then the element, or elementary part, which is stimulated will still tend to react in a manner appropriate to its own constitution; but it will not necessarily, at the same time, react in a manner appropriate to the constitution of the whole organic system, of which it is a part.

III

What I have spoken of as normal reactions to normal stimuli under II. A above, even in the very simplest of organisms, come to serve biological ends valuable to the organism and its elements; these reactions would be eliminated in the process of development if they did not serve such ends. As the organisms become more complex, these actions become more complex, and are found often to relate to ends of little immediate importance, but of great import in the later life of the organisms. They are moulded by the processes of elimination, so that each new-born

organism tends to act, in answer to stimuli, as its ancestors in the past have acted, to the best advantage of the race to which they have belonged, and to which the new individual belongs also. They tend to produce *typical* reactions, and these, when looked upon objectively, are designated as the expressions of "instincts," using the term very broadly.

Instincts are expressed by "instinct-actions" which vary in complexity and co-ordination; the most thoroughly co-ordinated of these "instinct-actions," and those most free from control by the great central nervous system in the higher animals, being called reflex actions.

These "instinct-actions" have psychic correspondents which I have called "instinct-feelings." All of these "instinct-feelings" influence the totality of the consciousness correspondent to the neural system which reacts, although many of them fail of sufficient vigour to become marked in the field of attention. When the expression of an instinct is inhibited, if there be an effect upon consciousness, we designate that effect by the word "impulse."

IV

(1) In the nature of life in a variable environment there must arise frequently in all organisms conditions under which the stimulus and the reaction thereto must be *abnormal*, in the sense described under II. B above. The result must appear as the modification of, or the inhibition of, the typical reactions which we consider as determined by Instinct: in other words, the process must lead to variation from typical reaction. Furthermore, this process must be as broad as the process of Instinct; must be as constant and as wide in its appearance. This process we find to consist in the reaction of a part for itself as though it were

an isolated entity and not an element in a more widely organised system.

But it also appears evident that this process must be represented by some effect upon mental life, which effect must be as broad as the process itself.

As in the case of the instincts, we should not expect to note all the effects of this process in the field of attention, although we may agree that all such effects influence in some measure the totality of the consciousness correspondent to the system which reacts: hence to the less thoroughly habitual forms of such effects upon consciousness must we look for the distinctive marks of the process.

The process, as we have argued in detail, involves inhibition of instincts, and hence it must bring into being impulses, and must modify reaction by repressing some of them in the very fact that it is sustaining others.

In the most complex form of our conscious life we discover that the process of ratiocination does this very thing. This process of ratiocination when examined analytically appears to act, in accord with the general process of variation, through the production of an emphasis of a stimulating idea, thus tending to produce variation from the typical movement in consciousness.

But although the process of variation through ratiocination is marked only in the most vivid moments of our conscious life, we do not fail to notice that there are many actions of our own which we think of as the result of reasoning, in which the process of ratiocination is never brought into consciousness. Furthermore, we note in ourselves many actions, which seem to have no effect upon the field of attention whatsoever, which, however, cannot be separated from reasoned actions.

(2) These observations lead us naturally to the hypothesis that reason is the mental process correspondent with

variation in organic aggregates and is as wide as life: that reasoning is a process as broad as consciousness but not necessarily brought into the field of attention.

(3) This hypothesis is corroborated again when we consider that conscious variation is indicated by voluntary choice. If our hypothesis be true, then volition (as indicated by choice) and reason must be equally broad in occurrence, must indeed be as broad as life. This conclusion is enforced by the observation that will and reason are coextensive and conterminous; that all rational action is voluntary; and conversely that all volitional acts are rational at the moment of the act: the notion of the deliberate choice of an irrational act being illusory.

Or expressing this in other words: all of variation thus appears to be of one type. But the most complex forms of variation have reasoning and will as their psychic coincidents, and reasoning and will appear to conform with variation as it is studied objectively: hence we are compelled to assume that all of variation has as its psychic correspondent reason and will of simple form; the reasoning and will which attract our attention in reflection being of a highly elaborated kind.

V

The conclusion that we reach as the result of this argument is this: that as Instinct constitutes the typical organic process, so Reason and Choice, indissolubly connected, constitute the variant process in organic life: the effect upon attentive consciousness being marked in relatively few cases; the reasoning and the willing sinking back of the "threshold," into the field of inattention, in a large proportion of cases.

VI

Finally it is to be noted that we have come to the conclusion in the course of our study that all of reasoned action, all of variation, is determined finally by instinctive reaction ; what appears as divergence from instinctive forms being due to the complexity of the organic systems involved, and to the fact that complex instincts are built upon instincts of simpler form, of earlier genesis, and of more thorough organisation, which therefore react more quickly to hyper-normal stimuli than those less thoroughly organised.

We have also concluded that all instinct appears as a mode of that simplest of all phenomena of activity—the reaction of a living cell to the stimulus from its environment.

To this simplest of all reactions, therefore, we finally trace back both Instinct and Reason. Both are but aspects of the basic tendency to the persistence of life ; they appear in opposition because we look only at complex organic forms, while the tendency to strive for persistence of life is fundamentally *elemental*, only secondarily relating to more or less integrated aggregates of elements, with which, in more or less complex organic form, biology has to deal.

If this view be sustained, then the problems of instinct and reason, of typical reaction and accommodative variation, are thrown one stage farther back ; they are resolved into the problems connected with the determination of the nature of that bond which unites the elements of organic wholes, and upon which depends what we call their “integration.”

PART V

CERTAIN RELATIONS BETWEEN INSTINCT AND
REASON

CHAPTER XX

I.—THE RELATION OF REASON TO MORAL CODES

§ 1. IT will be evident to the reader without argument that variation in moral standards is necessary if newer standards better fitted to our use are to arise. If moral codes of the same nature, fixed and unchangeable, were given to all of us, there would be no hope of their betterment; no hope, in other words, that the conduct which they tend to produce could change to correspond with the alterations that must be constantly occurring in an environment like that in which we find ourselves placed. Unless such variation did occur there would be practically no opportunity for the development of a more perfect relation between the form and conditions of our social life, and scarcely any chance whatever of an improvement in the adaptation of the ethical demands of our nature to the new conditions which arise as evolution advances; for without moral variation, and the opposition of action or of idea which it engenders, there could be no emphasis of the more advantageous, no suppression of the less advantageous, standards of living except through the most adventitious of conditions.

§ 2. In the chapters preceding this in which we have discussed the nature of moral codes we have noted that the very conditions which call them into existence make it

necessary that these codes and the moral standards which determine their nature should be different in different individuals, and in the same individual at different stages of his development.

The differences of which we have spoken in those chapters have been almost entirely those which are determined by the complexity of the influences which mould our lives through inheritance, and by the diversity of conditions which in our experience affect us as stimuli to reaction upon the environment.

Variation from typical racial forms of reaction, the reader will perceive, may thus arise in an individual, either as the result of the mere emphasis of special impulses through processes which are determined entirely by his inheritance from ancestors in whom different orders of impulse efficiency have occurred, or else as the result of change in the conditions which surround his life.

Furthermore, it is to be especially noted that this variation of standard may not appear as such in consciousness at all; may, and indeed is likely to, appear to be the perfectly normal standard to the man who varies as the result of inheritance or even of past experience; may lead him to think, and wonder, that the world is all against him and all wrong; may be to him a source of astonishment and vexation of spirit because it is inexplicable by any experience or by any teaching his fellows may be able to give to him.

But were improvements in our moral codes determined alone by the clash of standards dependent upon inherited processes, and upon differences of experience, which have so little effect upon consciousness that they lead the man who varies to overlook the fact of his variation; were our standards perfected by nought but the contest for persistence of the life which these standards represent; then the

improvements would indeed be of very slight moment in our lives.

We find, however, as a matter of fact that we take the deepest kind of interest in that special type of variation which is *consciously* effected in the lives of thoughtful men who realise the nature of the typical standards which are presented in their psychic experience, who find suggestions of divergence arising in mind, who treat these suggestions rationally, and who deliberately, and voluntarily, act to effect variations.

This process is going on around us at all times amongst men who are conscious of, even though they be unable to analyse, the steps they are taking; though they be incapable of appreciating the ends towards which their actions tend. It is this process of conscious variation that determines the alteration of moral standards in an individual by voluntary effort, and which is therefore most important in the development of character; without it alteration of moral codes would take place only in a wholly automatic and quasi-mechanical way.

§ 3. Now there is one point in the chapters which have preceded this that I think has been made clear, viz. that, if our notions are valid, so far as we are ourselves able to alter the efficiency of an impulse, it must be by rational process: and this carries with it the implication that so far as the balance of impulse efficiencies is altered, not by extraneous influence but by our own effort, this must also occur through rational process. But it is the order of impulse efficiencies within us apparently which determines our moral codes, and it thus follows that reason must be the determinant of variation in moral standards.

Or to put this in another form: if voluntary variance from typical standards of action is always rational, and if

growth towards perfection is dependent upon variation, then reason is the determinant in the struggle towards the perfection of our moral standards.

It is important to note this point because, as we shall see below, it is assumed by many people that the perfection of moral codes in the lives of individual men is reached to a great extent not by rational process, which as we have seen involves the emphasis of some partial instinct in that whole instinct system which determines our moral codes, but is reached through their willingness to be influenced by the very broadest of all instincts, an instinct which would not appear but for the existence of the most highly organised form of social life, viz. the governing instinct, the religious instinct. This claim, in consideration of the argument preceding this, cannot be granted for a moment.

II.—THE RELATION OF RELIGION TO MORAL CODES

I

§ 4. In the preceding division of this chapter we have noted that in the process of the perfecting of moral codes, as they are usually conceived, such changes from typical forms of these codes as are determined by the voluntary effort of individuals are effected through the functioning of reason within us, and not through instinctive, typical, reactions functioning for the benefit of the organism. If then religion be instinctive in its nature, it is evident that improvements in our own individual standards are not directly effected by religious influences: that they may be indirectly effected by them we shall see below.

But if we turn from the consideration of individual life and study the effect of religious functioning upon racial life, we find the influence of the religious instinct in this direction most important in relation to ethics. We have seen that ethical standards, determined as they are by balance of impulse efficiencys, must necessarily vary in different individuals, and in the same individual at different periods of his development. But the religious influence, on the other hand, is directly concerned with no balance of instincts, modified or unmodified; but with a single complex instinct which is a heritage of the race, is typical: except in very superficial directions it is unchanged and identical in the adult and the youth, in the man of culture and the man who has nought of advantage either through inheritance or circumstance. The savage and the civilised, the wise man and the child, when swayed by religious enthusiasms are affected by the same racial power, although it acts upon beings in whom different standards of action are developed.

Religion does this for all alike ; it impresses upon them the weighty importance of the broadest, " noblest," impulses which affect them, however much the character of these impulses may differ in the men affected : and the standards determined by these impulses will be defended with ardour by men in proportion to the power of their religious convictions.

It is evident, then, that the religious influence will be of great service in the process of the perfecting of standards through racial instrumentality, even though it be of little moment in individual conscious life. For where diversity of ethical standards appears and results in conflict between those upholding two opposed moral codes, the force of religion will act to give enthusiasm for their special standards to those who are thus brought into opposition ; it will tend to force the issue, and will thus bring out of the conflict new standards, standards which may be found to be influenced by both of those which have stood in opposition, or to be gained by the overthrow of one and the uplifting of another.

If this be true we should be led to expect to find different races of men in which religious fervour is equally developed defending ethical doctrines of the most diverse character ; and in the days of cruder thinking we should expect frequently to find this diversity tending to result in physical contest, in a conflict which would determine whether some one race *A*, which religiously preached and acted in accord with the doctrines determined by the efficiency of some one impulse *a*, would overcome or conquer in the contest for survival another race *B*, which with equal religious fervour preached and acted in accord with the doctrines determined by the efficiency of an opposed impulse *b*.

§ 5. Illustrations of a limited form of this conflict of impulses as emphasised by religious fervour are found, as the reader will readily note, in the intolerant, fanatical, persecutions so common amongst savage tribes and semi-barbarous races, and even amongst those whom we do not usually class with the uncivilised; indeed, we do not find it needful for example to go back farther toward barbarism than to St. Bartholomew's Day.

If, however, we would convince ourselves of the importance of this conflict to the development of moral life, we have but to turn our attention to broader considerations than those just touched upon.

We may note in passing the profound contests which must have occurred, in the days before accurate historical record was made, between the established phallic religions which emphasised sexual life, and the newer religions which emphasised the ethical codes that arose later in the history of development: of these contests we find some lingering examples noted in the scriptural accounts of the efforts of the followers of Jehovah to overwhelm the prophets of Baal.

Turning from these suggestions to the study of times in which historical record is more accurate, we may note in brief one form of moral opposition which has been in the past, and in the future is not unlikely again to be, determined by distinct physical contest strongly influenced by religious enthusiasms.

In the very first consideration of the subject-matter of this book we noted that the units of simple aggregates might find success in the struggle of life either through separation from one another, or else through continuance of aggregation coupled with growth of integration and difference of functioning in the different units. We also noted that social organisation amongst men, so far as it exists at

all, is closely allied in form to the simpler types of aggregation.

In correspondence with these forms of lower life we see in mankind two ways in which success might be realised in social life. It might be realised in the first place by the segregation of small families or tribes, whose needs are simple and whose numbers do not rapidly increase; tribes which live by jealously guarding their small possessions and attempting to possess themselves of stores which have been collected by other and similar small tribes. Such was apparently to a great extent the tribal condition of primitive man, and we have ample example of such condition among the nomadic races still living in uncivilised lands.

Now evidently in tribes dependent upon such conditions for their existence, among the impulses most important to their welfare must be (1st) those that lead to suspicion of others, and readiness to attack those that appear to be enemies; and (2nd) those that lead to the taking possession of the properties of their adversaries. In such people we should expect to find religion giving emphasis to these most important racial impulses; and as a matter of fact we find just such a case in the religion of the early Hebrews; here we have a most telling example of a truly religious emphasis of impulses that are entirely repugnant to us who are brought up in the midst of a Christian civilisation, but which were very important for the maintenance of the low social tribal life in which they were thus emphasised.

To return to the thought above; we have noted that racial success might be reached not only thus by tribal isolation, but also in a later and nobler development by the growth of large and complex systems involving differentiation of functioning, division of labour, and interdependence of relation amongst individuals; by the growth of such social systems as have been the basis of all the higher

civilisations of the past, and are the basis of those in our own day. Among the impulses of greatest importance to the people of these larger social groups will be those which would lead to co-operation and to mutual helpfulness, and we should expect in such races to find religion tending to strengthen these social impulses.

And as a matter of fact, in the greater civilisations we do find religion acting to make efficient these very impulses as they exist in one form or another. In India, where the division of labour is most marked in the separation of castes, we find religious observance, notwithstanding numerous historic reformatations, to a great extent emphasising the differences between classes, and leading to conceptions of duty in conformity with these divisions; conceptions which do not appeal to us who belong to social groups that depend less upon division of labour than upon other social forces. In the Christian civilisation we find less division of labour, less of caste classification, but a greater development of certain characteristics which we think more than take the place of such divisions, and which are evidenced in the impulses which lead to co-operation and social consolidation: and we find this exemplified in the opposition to plundering and murder in general; in the deprecation of hate and of vengeance, even when those concerned are not kinsmen; in the fostering of brotherly love, of the widest sympathy, of the broadest benevolence; all of which impulses are characteristic of the Christian morality, and all entirely diverse from those appearing in the moral forms taught, for instance, by the religion of the early Hebrews above referred to.

It is clear that in the process of development great differences of racial impulse, and of religious emphasis of such impulse, might accrue in different races which themselves had not come in contact; such differences are

found existing between the impulses of minor importance emphasised by the religions of India, and of greater importance emphasised by the religion of Islam; and those opposed impulses emphasised by the religions of Western Europe.

The reader will realise that, in the past, religious fervour has given enthusiasm to those led by the impulses which determine these diverse forms of civilisation; has led them to distinct attempts by physical contest to blot out their opponents who have held diverse views of a moral nature. The Crusades of the Middle Ages were contests between two diverse civilisations, between civilisations involving diverse impulse emphasis and diverse moral codes; were in effect contests for the supremacy between two divergent types of morality. Nor does it seem improbable that a similar contest may be renewed at no distant day, as all students will agree who study the attempt of European civilisation to curb and guide the many millions who own the Sultan of Turkey as their leader.

I have said enough, I think, to remind the reader that the religious force which brings into prominence the divergence of moral codes may be most efficient in the displacement of one by another, and in the enforcement of one that is more effective for social life rather than another which is less so: in other words, that religious influences working through racial contest must necessarily have in the past done much to perfect moral codes through the medium of physical contest: but, as he will of course realise, large differences of impulses, and of religious emphasis of these impulses, might occur which would have no bearing whatever upon the efficiency of the races struggling for persistence; and conflict might result in the extermination of certain racial impulses, and of their religious emphasis, through the destruction of the races holding them, this

destruction being due to causes entirely unrelated to these impulses.

It is not improper, perhaps, to call attention here to the self-confidence, which we of the Western civilisation display in the necessary triumph of the moral code we uphold. We are all too wont to underestimate the numerical strength, and the merely physical power, of the races which oppose our civilisation, founded as it is upon our specially differentiated moral code: we are wont to forget that our moral code involves the ideal of peace and the cessation of physical contest, while the codes of a large part of our opponents do not involve this notion. Indeed, it may not be for our type of the higher civilisation to win the battle, to determine the moral trend of the future, to fix a moral code which we shall be able eventually to force upon all mankind: it cannot be claimed to be in any respect a settled fact that the establishment of our civilisation will prove to be the mission of our race, although our confidence in this future dominance of our ideals is a sign of vigour which argues well for the fulfilment of our hope.

II

§ 6. We have considered in the preceding sections the action of religion upon moral codes through racial influences, through contests between those diverse civilisations which difference of moral codes has determined: let us now return to the study of individual life and ask ourselves what indirect influence the religious instinct may have upon the perfecting of moral codes of men considered as individuals; direct influence we have seen it cannot have.

We have already noted more than once that in individual life variation through reason determines the changes in moral codes through which their perfecting must be wrought, that

our instincts cannot effect these changes ; but this does not imply that religion may not affect the rapidity with which these changes occur and the stability of the newer moral forms which are thus produced.

The religious instinct, as we have seen, functions to bring into prominence the instincts of later development and of broader racial significance, and it does this by restraint of the instincts which are of earlier development and of narrow and individualistic significance. It is apparent, then, that when there once occurs in an individual a variation of moral code which would lead to fuller social opportunity and advantage, it would tend to be enforced and made recurrent in the life of the individual by the influence of religion, which in restraining the "lower" reactions would give the newer forms of broader worth power to assert themselves.

To a man uninfluenced by religious restraint the newer moral code might become known, and its value might be thoroughly appreciated ; but for all that it might fail to exert any power in his life because in the moment of temptation the impulses emphasised in the newer moral code might be overwhelmed by the force of individualistic and other impulses of narrower significance, and this because although the higher code has been acknowledged intellectually it had gained no impulsive backing. But if this newer moral insight be given to the religious man it at once becomes a power in his life, for each expression of his religious instinct gives prominence to the newer impulse relation through restraint of all the impulses of less broad social import.

The religious instinct thus appears to be of great importance in the establishment within a man of the highest form of moral code which has arisen within him, even though it has nought to do with the first appearance of this highest form. The power of religion in reference to the ethical life of a man lies in the fact that it impresses upon

him the habit of listening for the less boisterous but more persistent of the guiding voices within his soul; that it gives him enthusiasm to act in accordance with these voices; that it fosters within him the habit, where alternatives present themselves, of choosing naturally that which is of the deepest significance for him as an integral element of the social life which is developing around him. In other words, if he allow himself to be guided by the religious instinct, he is compelled to act out the best that is in him impulsively without necessity of waiting for slow process of argument and conviction. Although religion does not in itself perfect our moral code, that perfection being a matter of individual development and individual effort, it does serve the purpose of giving to us an instinctive tendency to express and to strengthen the best that is ours by Nature's gift, as our moral life unfolds.

This it is that a man gains when he falls under the sway of the religious instinct: a tendency has arisen within him to give his higher instincts full play, a tendency which has itself become instinctive.

III

§ 7. We have thus far been considering the influence of the religious instinct upon the formation and the perfection of moral standards during relatively long periods of racial and individual life; now I shall ask the reader to study with me the relation of religion to the moral code which exists in individual life at any special period of life.

It is apparent that we are here dealing, not with the action of the highest of instincts in relation to the rational processes, but solely and altogether with phenomena of instinct; treating of the relation between the highest of instincts and the instincts of lower grades whether unmodified or modified

by experience. Moral codes are instinct born, and religion itself is of instinctive nature.

As we have already seen in a preceding chapter, if we speak strictly the impulses determined by the religious instinct must make part of the highest form of moral code. But we have also seen that this fact is not generally recognised, and furthermore that moral codes of a very high type, although I would claim not of the highest, may exist in those in whom the religious instinct has not been awakened: we have not been surprised, therefore, to find that rules which have been intended to serve as guides to moral conduct relate, for the most part, to the forms of ethical code which are exclusive of the impulse due to the existence of the religious instinct.

§ 8. Considering morality in the narrower sense as exclusive of religion, as it is usually considered, we note that the religious impulse, representing only one broad instinct, is stable; while the moral code, which is interpreted as exclusive of religion, and on which religion acts, being determined by varying emphasis of varied instinct elements, is unstable.

Thus the religious impulse, on the one hand, is one which may be possessed by the dullard as well as by the thoughtful and acute. When it is felt it appears as a power within us as we bring ourselves to bow our wills to the Highest Conceivable Will. Once grasped, this inward force retains for all time the same general qualities: it may increase or decrease in volume, so to speak; it may be lost and reclaimed; but it does not change its general character. Gained in childhood, it remains the same with the religious man until death. Attained in manhood, it brings the strong man to be likened to a little child in submission to its guidance.

On the other hand, the ethical standard in its narrower form as exclusive of religious qualification is seen to be constantly changing.

If we think of the religious impulses of our youth as compared with those of our manhood, we clearly recognise them to be the same in essence, however much they may have changed in fervour; but when we compare our ethical standard of to-day with that of a decade in the past, we see as clearly that it has changed its form for better or for worse with our changes of thought and condition.

§ 9. We are now in position to answer a question of some importance which is often raised in the minds of thoughtful men; the question as to the priority of ethics to morals. It has been assumed by certain thinkers that religious impulses are naturally much later in appearance in the human mind than the ethical impulses proper, as these are usually conceived; and from this assumption is developed the notion that those men who teach their children religious doctrine, and who endeavour to produce in them religious convictions in their early youth, are encouraging habits which are not only futile, but vicious, in that they warp the child's normal development, and produce character of an artificial form.

There is something startling in the arrogance that assumes to have found in a special theory the basis for attack upon a habit which is established almost universally in man: that does not rather look with confidence for some limitation of the theory which will account for the existing widespread habit of the race. It seems to me that our study brings out the truth in this matter with a good deal of clearness.

It may be said without question that in the theoretical sense the germ of ethics must have appeared prior to the

germ of religion. There must in the beginning have been, as the outcome of that restraint of individualistic instincts from which religion develops, some emphasis of non-individualistic instincts: and these non-individualistic instincts must have been developed before restraint of the individualistic tendencies could have become of sufficiently great racial advantage to furnish the basis for the building up of a new guiding instinct, such as the religious instinct appears to be.

As we have already seen, the very earliest instincts of a non-individualistic nature were those that led to the introduction of a relatively permanent bond between the father and mother of the offspring, to the end that the offspring might be preserved; in which instincts we have the germ of family life. These earliest of non-individualistic instincts must have been favourably emphasised by the habits of restraint of the individualistic instincts which religion involves; and as I have already suggested the prominence of phallic worship, cast off by Nature now that she has fixed in the race the instinct for the establishment of which this worship was originally emphasised;—this prominence of which we have much evidence, shows how deep-seated in the past must have been the influence of the religion which forced upon a race of promiscuous sexual proclivities the habits which form the basis of that feeling of responsibility for the care of one's offspring which in lower or higher degree is now, and through all historic ages has been, so marked a feature of man's life as one compares it with the life of the highest of animals below man.

If this be true, then the germ of religion must have appeared prior to the appearance of those higher complex social instincts of which we treat almost entirely in ethical studies, although it could not have appeared while individualistic instincts alone prevailed.

On the other hand, it is of course equally clear that the greatest power of religion in relation to the advancement of the race appears in its emphasis of what are generally known as the strictly ethical instincts, through the restraint of the power not only of the individualistic instincts, but in certain relations of the sexual instincts also. Thus the very forms of worship which at first were of purely phallic nature probably became gradually transferred to use in newer religions which emphasised the ethical instincts together with those relating to the family life; and these forms in turn were transmuted into newer forms which led to an emphasis of what are now known as the ethical instincts as these gradually developed.

If this be true, we should expect to find the earliest germ of the religious instinct appearing in the child almost coincidently with the appearance of the sexual instincts: and we have seen in an earlier chapter how true this is. As the sexual instincts, however, are adumbrated in the early years of child life, so it would seem must the religious instinct in its crudest of forms be adumbrated.

As Nature has devised by use of the play instinct the means of pressing forward in life the practice of activities which are some day to become habitual; as doll plays indicate the shadow of the mother's cares in the future woman: so has Nature led the race to press forward in the life of the child the forms of religious expression at the earliest budding of the instinct they express, and this long before it awakens in that form, and with that force, which marks its functioning in relation to the higher ethical instincts which appear later on in life. In similar manner Nature has led men to teach to young children the practice of ethical habits before these habits are developed by the natural growth of the instincts which later on might make the ethical expression spontaneous. As I have already said

in a previous chapter, the child that is cut off by careless guardians from the early encouragement of religious habits is likely to lose in later life the restraining influences of religion altogether; for rare indeed is the parent who, having thus avoided the encouragement of the religious instinct in his or her young child, has the wisdom to encourage its unfolding when the child becomes old enough to appreciate its full power.

When we turn from the consideration of this very early functioning of religion, which shows it to be in a sense in advance of the development of the earliest of the higher ethical instincts, to the study of religion *as fully developed*, we see clearly the priority in a theoretical sense of the ethical instincts to the religious instinct. The ethical instincts, as we have already remarked, must be already existent before the restraint of individualistic instincts through religious functioning can bring them into prominence. In other words, ethical codes, as defined in the narrow sense, give the material upon which the fully developed religious instinct must act, and without which its functioning would be of no service to the race.

§ 10. But although religion is based upon existent moral capacity, nevertheless it seems to me to be clear that a morality without religion is an unstable product. It is certain that a man who has gained a noble moral code through inheritance from virtuous ancestry, or through mere circumstance of life; yet in whom, on the other hand, there has not developed the religious instinct which leads him impulsively to reach out for and follow the best that is in him;—it is certain that such a man will be very likely to fall away from his high moral estate if special temptation assail him, or circumstances lead to an over-

throw of those forces which have led him in the past to consider only the nobler impulses within him.

The attainment of religion is thus seen to be most important to our moral life, a fact which is overlooked in the theory of those who would teach an ethics without religion. In the *theory*, I say, because I believe that in fact these very moral teachers, so far as they succeed, do not in practice overlook the value of religion as I understand it: they usually unwittingly are working in line with the Churches to formulate a new morality, a higher form of ethics, in which the religious impulse, the impulse towards restraint, is the crowning element, and the most efficient aid to enforce that order of the impulses lower than itself which is most effective for racial development.

IV

§ 11. In our moral life, then, it appears that the attainment of the religious habit of mind should be our most persistent aim; or, in other words, the influence of the religious life is the very basis of the highest morality: "the fear of the Lord is the beginning of wisdom."

But, as we have seen, this highest of impulses may appear not only in the life of the man who has gained a noble moral code, but also in the life of some weaker brother.

Religion may be reached by one who is entirely unable to see that it is not a perfectly just thing to take what belongs to his neighbour, and who will fervidly pray for help in highway robberies, as we see in many historical examples; nor will it *per se* teach him better. And, on the other hand, religion may be reached by the man of affairs who appreciates the nicest points of honour; to whom it indeed gives courage, even though in itself it effects no change in his standard.

The "getting of Religion"—the attainment of such a condition of mind that the tendency to do what is thought to be right has become impulsive,—that is the essential thing in the highest form of moral life; and it is no wonder indeed that the importance of its attainment leads thoughtless men to think that moral striving may cease when once the religious impulse is felt;—to believe that perfection of moral type is thereby attained.

In fact, however, the moral life of the man of religious habit should be one of constant endeavour to gain a nobler code of moral guidance, rejoicing merely that he finds himself under the dominance of the influence which will be most powerful to aid him in his effort to work out, and hold to, the best that is within him.

§ 12. All who appreciate the richness of religious possession, and wish for all men the comfort and help it gives, are naturally led to consider the causes that are at work among that large class of intelligent men whom we find holding aloof from, or absolutely rejecting, all religious influence and repressing all religious tendencies. One of the most important causes of this rejection, I cannot help thinking, is connected with the misconception of this relation of religion to ethics, of which I here speak. There is in every community a large class of men whose quick intelligence is felt in all directions on the right side, and yet who reject the claims of religion when pressed upon them from without, or when calling upon them from within their very souls, on the ground that it fails to fulfil its ethic pretensions.

This position is based upon the individual's knowledge of the world and of the religious men whom he meets in his affairs, who not infrequently show lapses from morality which he cannot condone but which they apparently do not

deprecate. It is based further upon the proposition which he treats as a truism, that a standard of morality lower than his own standard, which he calls non-religious, ought not to be found in a man who is professedly religious. It leads him, on the one hand, to give open expression to the belief that his avowedly religious, but to his view erring, acquaintance is a hypocrite; or, on the other hand, leads him to speak in scornful tone in relation to all religious thought and profession. That religious fervour brings a high grade of morals or tends to perfect the moral standard is what he denies, and in denying he throws all religion, as he understands it, to the winds.

But, as the reader will observe, such a position is based altogether upon the notion that religion should perfect moral codes, a notion which is as far as possible from being correct.

It may be well for us to ask how it happens that intelligent men come to accept this false position. They in some way gain the notion that the true end of religious experience is the making of a good man, and that if religion does not make a man as good as, or better than, they themselves are, who are as they think without religious guidance, then it is not worth the having. This notion is probably gained by men partly from observation of self-satisfaction in some religious acquaintance, who seems to hold that if he is religious he has attained to all that is morally needful; that if his conscience does not smite him then his acts must be beyond criticism; that his standard of morality is in some way fixed in the fact of his attainment of the religious basis. What is more, they find corroboration of this notion in much of the prevalent religious teaching, which, when it exhorts to the attainment of religion, seems to teach that this attainment is all that is necessary for a man's moral health, that it *per se* is

to make him a good man, and is to give to him not merely the basis of a new morality in the implanting of a tendency to choose the right, but the new morality itself, then and there.

If the prevalence of this teaching be denied, then I must fall back upon the statement that at all events such is the teaching as it is understood not only by the man untouched by religious influences, but by the average religious listener himself; for unless this be the understanding I do not see how we are to account for the sadness and discouragement felt by the religious man, which stands side by side with the sneer of the scoffer, when failures in ordinary morals among those who are ardent professors of religion are noised abroad.

But it is clear, as we have already seen, that the *development* of individual ethical standards is not a matter of instinct but a matter of intellectual process,—a matter of reason.

Surely that which tends to perfect the ethical standard is directly and distinctly intellectual. The discrimination of motive; the analysis of fact and condition; the watchfulness to avoid self-deception and to gain insight; the conception of principles and the recognition of cases under those principles, and of those which are of doubtful significance: these and kindred mental activities are what are concerned in the perfecting of our standards. In this process we are not dealing with instinct, not with the attainment of the impulse to the right; that is a much broader and more general quality of character.

We and our religious teachers should feel that it is our duty, after the attainment of religion, to turn our attention most strenuously to the perfection of our ethical standards. This would not make of less importance the work of the prophet who calls people to God, but it would lead him

to close his appeals with the teaching: "Now that the impulse is right, now that 'the heart is fixed,' now is the time for us to develop our present notions of the right, and to aim to make our standards in all respects the highest attainable."

A clearer apprehension of this truth would lead to greater conscientiousness in not a few of our clergy; for instead of being led to feel that having handed down religious enthusiasm to their hearers they have done all that is demanded of them, they would be led to watch more closely their own standards to see that they continue to grow in accuracy and refinement; and this in order that they may be able to lead to the same higher attainment those who listen to their teachings.

But the fullest effect would be not for the preacher but for those whom he leads, and for the busy men of the world outside of his flock. For the religious man there would be a gain in courage: no more would he be dismayed by the failures of his religious neighbours to act in accord with the highest moral standards; rather would he see in those revelations of lower standard a vision of new ethic worlds to conquer. There would be a gain in charity; for most cases of apparent hypocrisy disappear when we consider the subject from the standpoint here taken.

Most fortunate of all would be the gain made in the removal of the stumbling-block of which I have above spoken from the path of the serious thinker upon religious subjects; the removal of that obstacle which so often results in loss of the possession of the religious impulse itself, because the man misunderstands its end and its means, and through such misunderstanding rejects as a failure what would be for him a most effective help.

We should realise that religion can do no more in this relation than bring out the force of men's racial standards

and give him the habit of life which by continuous thought and effort will lead to a perfecting of these standards. We should therefore not be surprised to find often that men who are deeply religious nevertheless depart from moral standards that we consider vital, and we should even expect to find them, as we do find them, defending such departures from what we call righteousness; nor should we judge on this account that religion is the less of value; if we do so judge, it is because we altogether mistake the function of religion.

Religion teaches us to listen to the past, and gives us enthusiasm to do the work commanded by the "voice" from that past; it gives us the basis for the perfecting of our moral code; but it does not give us this perfect moral code itself.

CHAPTER XXI

THE SOLUTION OF THE PROBLEM

I.—THE BALANCE BETWEEN REASON AND INSTINCT

§ 1. IN the course of our consideration of development a most interesting series of scenes in the unfolding of organic life has been brought into view.

We have seen that the multiplication of individual cells, which tend to aggregate as they multiply, necessarily brings about differentiation of functioning in the several parts of the aggregation. When the elements of these collections of cells gain in interdependence, *pari passu* with their functional differentiation, they form that type of aggregates which we call individual organisms; in them we see arising certain activities of the aggregate as a whole which we call instinctive activities, and which we discover relate to the persistence of the individual organism, and not to that of the elements composing it, which latter, however, are alone directly stimulated to action.

These individual organisms in their turn tend to become collective, and this higher aggregation involves further differentiations of functioning in the individual organisms. Most notable of these are differences of reproductive capacity which bring about differences of sex, changes which carry with them many new and momentous alterations in functioning. And here we note the appearance of

instincts of a new type relating, not to the advantage of the individual organism, but rather to the persistence of the species to which the individual belongs.

Again the inter-relations of individual animal organisms, and the differences of reaction upon the environment due to divergent influences, produce many activities, differing in kind in different individuals, which we can see yield benefit to tribal collections. Unified tribal action then appears, and co-operation as well as competition between tribes, until we reach the complex life of the present day with its many bonds of relation, with its competitive struggles and its sympathies; a life in which the persistence of differentiations is determined more largely by other processes than by direct contest, the ends to be reached as a result of these differentiations being still unknown to us, and being unlikely to appear clear until many centuries have passed away.

§ 2. In all parts of this series, even as soon as we step away from the simplest isolated protoplasmic units, there appear in and through the processes above described two influences at work: first, the elemental variant influences, and second, the influences from the organism producing typical reactions.

Although, as we have seen, the elemental variant actions in organic aggregates are finally referable to instinct actions of the elements of the aggregates in which they appear, whether these be simple or complex, nevertheless in reference to the organic forms we are here considering the variant actions are clearly separable from the typical actions.

The elemental variant influences appear in our mental life in the form of what we call intelligence, come into our consciousness as reasoned choice.

The influences from the organism, on the other hand, which when objectively viewed appear as instincts, affect our consciousness by the appearance in the first place of what I call instinct feelings, which are the coincidents of instinct actions; and in the second place by the appearance of impulses, which are states of mind coincident with the obstruction to, or inhibition of, the working out of instinct actions; whether this hindrance be caused by what is recognised as the opposition of diverse instincts, or appear in connection with hesitancy and reasoned choice.

Here we see that we have in consciousness two guides to conduct, Impulse and Reasoning, corresponding respectively to Instinct and Reason, and the question I would consider in this chapter is this: where the resultants of rational process on the one hand, and unreasoned impulse on the other, would lead to opposed actions; and where the opposition is of such nature that it comes into clear consciousness and involves a final act of reasoning, a decision and a choice; which of these two guides shall we follow? Should one of the two, reasoned resultant or instinctive appeal, always have the precedence; or should authority rest with Instinct in some cases, and with Reason in others? Is it true that "by every surrender of reason to passion our humanity is dishonoured"?

I

A

§ 3. Let us study this question first with especial reference to the nature of Instinct. In so doing we may well begin by recalling the fact, emphasised in the previous chapters, that instincts, which call forth our impulses, can only be understood if we suppose that in general the instinct actions which express them have become fixed and

organic because they have proved to be of service to our ancestors in the ages that have preceded ours.

Even if we could conceive these instincts as having come into existence fully formed, we should find it difficult to understand how they could have persisted and have become elaborated, as we find they have, unless they had been of service to the race in which they appear: for under the postulates of the developmental hypothesis which we assume they would surely have tended to have been eliminated had they not had such values.

It is of course true that some of the instinct actions which we discern may possibly be forms of reaction that have belonged to individuals of a race that has persisted because of conditions entirely unrelated to these specific actions expressive of the instinct. It is possible, in other words, that these instincts may be retained in more developed states only because they have formed no obstruction, or only a minor obstruction, to the progress of the individual, or to that of the racial life of the organic group in which they appear: it is possible that the group has come to persist, not because of the efficiency of these special instincts, but because of certain other capacities which have been gained by the race in which these special instincts appear, which capacities have enabled the group to obtain advantage in the contest for survival. They may correspond to the "rudimentary organs" in the individual organism (such, for instance, as the nipple on the breast of the human male), which are supposed to remain uneliminated in the process of development because they do not stand in serious opposition to the advantage of the individual or of the race to which he belongs.

But even if we accept in some cases this possibility, it will at once be apparent to the reader that this explanation itself is dependent upon the acknowledgment of the exist-

ence of other advantageous habits of action which must themselves be instinctive, and which can only have persisted because they have been of advantage to the race in which they appear.

It cannot be doubted, then, that we are warranted in upholding the generally accepted hypothesis that on the whole the existence of an instinct carries with it the implication that the activities which it entails have been of advantage to the ancestors of the race in which the instinct appears.

§ 4. In studying from the instinctive side the opposition between instinct and reason as it appears in consciousness, we may advantageously follow the main groupings made in the preceding chapters in connection with our study of instinct.

We may consider in their order—

First, the impulses determined by the instincts which relate to the persistence of the individual; second, the impulses determined by the instincts which relate to the persistence of the species to which the individual belongs; third, the impulses determined by the instincts which relate to the persistence of the tribe within that species.

§ 5. First, then, as to the impulses within us which relate to individual persistence and the oppositions which reason dictates to these impulses. The great mass of the instinct actions which relate to individual subsistence, and to individual protection, are so thoroughly organised that we are seldom impressed by their conscious side; their correspondent instinct feelings sink into the field of inattention: although in some cases of more complex type the instinct feelings, as we have seen, are experienced in what we know as emotions, mainly because the instinct actions

to which they correspond are forceful and immediate in reaction.

Where the actions within us are so thoroughly organised as these are of which we speak, it must necessarily be that the vast mass of them will be carried on without sufficient obstruction to arouse in us conscious impulses. It is true that certain of those instincts which relate to bodily sustenance, when obstructed, arouse within us the painful states which we designate as the cravings: but relatively seldom do they arouse what we have seen is a necessary component of a conscious impulse, viz. the thought of activities which, as reflection teaches us, if realised, would break down the opposition and relieve its painfulness.

With the emotions obstruction of functioning more often produces not only blind cravings but distinct impulses to action.

Notwithstanding the thorough organisation of the majority of our individualistic instincts there are, nevertheless, not a few cases where we note reason urging us to contend in opposition to these instincts; cases where we conceive it to be possible and best to oppose these cravings and the simple impulses, where they are aroused. The doctor tells his patient that he must resist his natural craving for meats if he is to break down some special disease, or delay its culmination; and trusting his adviser he reasons that the craving must be resisted. In the field of Emotion we may note as an example that the thought of disgrace is, in our day of social pressures, likely to lead a man to inhibit, through reason, the instincts which would lead him to flight at the approach of an evident danger.

Now quite apart from the propriety of the action in these particular cases it must be apparent to the reader that whenever we bring into being such cravings and impulses we do so by placing opposition in the way of the fulfilment

of certain functionings which tell of the experience of the past in preserving individual life.¹ There is a bare possibility, indeed, that by this opposition we may directly conserve our lives, but these cravings and these impulses, where they are due to inheritance, and not to habit acquired by the individual, clearly say to us: "In the development of man the processes which you oppose have on the whole been those which have conserved the individual; if you persist in your opposition you run great risk of producing results which will be of direct disadvantage to the individual, whatever the indirect results may be."

§ 6. Let us turn from this brief consideration of the impulses which have only individualistic significance to the study of those which relate to the persistence of species. At the start we are led to recall the fact that the instincts which call out these racial impulses can be explained most easily in terms of our present biological knowledge if we agree that the instincts, and therefore the corresponding impulses, relative to the persistence of individual existence have become subordinated in our lives to those relating to the persistence of the species of which we are individual members.

We usually fail altogether to realise how habitual this subordination of individual value to racial value has become. In some of the lowest types of animal life total destruction of individual life is involved with the processes of reproduction; in some cases both parents merge into one body which is broken up into numerous new individuals; in other cases one parent organism dies invariably in the act

¹ For the sake of simplicity I overlook here those few cases involving the remote possibility, referred to in previous sections, that the impulses are caused by obstruction of instincts which have had no significance, but have been preserved because they belong to a race conserved by other protective instincts.

of giving life to her numerous progeny. The individualistic disadvantages connected with the processes necessary to the continuation of the species are less marked as animals rise in the scale of organisation, but even in the human animal it is easy to recognise the subordination of which I speak: we all appreciate, for instance, how often the human mother wastes her individual strength in suckling and caring for her babe; how often the father loses his health in providing sustenance for the mother and her babe when they are unprotected and incapable of self-support. But self-sacrifices of this nature are habitually passed over without a thought, are looked upon as natural, and if they are not willingly assumed the parent is quickly condemned; a fact which itself shows how thoroughly the instincts leading to individual advantage have in our race become subordinated to those tending to bring about the persistence of the species.

Another point I think my reader will assent to: not only is this subordination habitual, but it evidently is almost certainly necessary if the species is to be conserved, for we can with difficulty account for the rise and elaboration and persistence of these instincts relating to the continuation of the species unless we assume that, on the whole, individual life has been made more secure, and better fitted to adaptation to a changing environment, where the individuals have lived in accord with these wider-reaching instincts.

Although for the most part the impulses corresponding with the instincts we are describing are scarcely drawn into consciousness, for the reason that their appropriate instinct actions are not obstructed; and although in those cases where these impulses are brought into consciousness they usually override without difficulty all purely individualistic opposition; still in this region we begin to see

more clearly the action of reason, which appears in the emphasis it gives to the individualistic impulses in opposition to those relating to reproduction, and in the presentation of ideal ends of one kind or another which tend to bring about repression of those impulses which would lead to the persistence of species.

For instance, pure and well-recognised selfishness will, as we have already seen, lead men and women deliberately to avoid the begetting of children and the rearing of families, lest they themselves suffer individual discomfort or inconvenience; and fanatical religious ideas of the worthlessness of all things relating to the body will lead to the same result.

Now quite apart from the propriety of the action in these special cases, here again, I think, we must grant that if these impulses which relate to the persistence of the species, and which habitually subordinate to themselves the purely individualistic impulses, have become prominent in our lives because of their value to our race in its struggle towards adaptation to its environment; then if we oppose the functioning of these non-individualistic, these racial, instincts of which we are speaking, we are thwarting actions which tell of the experience of the past in preserving the species of which we are individual members, and which are therefore indirectly of advantage to the individual members of the species.

It is barely possible, indeed, that by this opposition we may conserve our lives, and that indirectly we may thus even subserve the advance of the species, if we happen to be specially vigorous members of the race; but it is evident that these impulses speak to us with no doubtful voice, telling us that in the development of man the instincts which determine these non-individualistic impulses, which we perchance oppose, have on the whole been those which

have conserved our species and made possible our own individual lives. If, then, we persist in our opposition we evidently run great risk of bringing about results which will be of direct disadvantage to our species, and of indirect disadvantage to the individuals composing it; risk that we will thus throw ourselves out of relation with that part of the race that is to effect its persistence.

§ 7. Let us now, in the third place, turn to the consideration of the ethical impulses, those which relate to tribal, to social, persistence, and which of all impulses are of most interest to us in connection with the argument we are making.

Here too we must perceive, as we have argued above, that the instincts which bring out these impulses can be most easily understood in relation to our modern biological tenets if we adopt the hypothesis that the impulses relating to persistence of individual existence, and those relating to persistence of the species, have both become subordinated in our lives to the impulses relating to the persistence of tribal life in the species, of which species we are individual elements.

In a vast majority of cases here also this subordination is habitual and attracts no notice: tendencies to lying, to stealing, to licentiousness, are more often repressed in the civilised man, and tendencies to benevolence and sympathy more often fostered, than we are wont to acknowledge; the generous liberality of the very poor, for instance, is recognised by all who have worked amongst them. The cases in which men fail to act in accord with their social impulses attract attention, and the proportion of these failures of subordination to Nature's order is exaggerated in our minds to an unwarranted degree.

But this subordination of the impulses of individualistic

moment, and under certain conditions of those relating to the persistence of the species, to the impulses relating to tribal efficiency is not only to a great extent habitual, but it is almost certainly necessary if this tribal life with all its advantages to species and individual is to be conserved. And here, as in the cases previously studied, we are altogether unable to understand the rise and elaboration and persistence of these highly complex instincts relating to tribal life unless, on the whole, the individual life, and the species to which it belongs, are made more secure, better fitted to adaptation to a changing environment, by the ordering of the individual lives in accord with these wider-reaching instincts.

It is barely possible to be sure, as we have already seen, that some of these elaborately developed instincts in man may be "rudimentary" or "vestigial," and without special significance; but in the nature of the case this is less probable than with other instincts: for the higher instincts involve the most complicated of adjustments of activities, and these activities are very unlikely to have become thus adjusted to one another except as the result of struggle and conflict determined by racial demands which have emphasised the existing adjustments and have brought about the elimination of others which have been equally forcible so far as the individual and the species is concerned, but less so in relation to tribal development. The improbability of this lack of importance increases, the deeper seated and more persistent these instincts appear to be: for where they are thus powerful and persistent they must have belonged in varying degree to many a tribe of contestants, with other reasons for their struggles; and in all probability they must either directly or indirectly have strengthened those in whom they were especially prominent, this strengthening in the case of the higher ethical instincts being probably

due to a great extent to their efficiency in the production of unity within the tribal community.

Where the ethical instincts act without opposition they are, of course, not presented to consciousness in the form of impulses. Where opposition does arise, the ethical impulses are aroused: and it is important to note that they are often felt to be more persistent and yet at the same time less powerful than the impulses of a lower order; and this, I take it, is because they appear in, and govern in, a great many cases of varied nature, being concerned, as we have already seen, in establishing general trends of action through very numerous sequences of activities, which are aroused by varied stimuli.

Where these ethical impulses do appear in consciousness, it seems to me that they either override, or bring into more effective relation, far more often than they fail to do so, all purely individualistic impulses, or such as relate solely to the persistence of the species.

On the other hand, as we are dealing with instincts of great complexity, and of the latest development in the race, and hence of less fixed co-ordination, we should expect to find, what we do find, that it is in the realm of the ethical impulses that we see most clearly typified the action of reason, in the emphasis it gives to the impulses of lower grade, and in the presentation of ideal ends which tend to repress those impulses which would lead to tribal persistence and advance.

I shall study this class of impulses so fully below, and shall illustrate this opposition in so many ways, that I do not stop now to give examples of it. But I am concerned here especially to ask the reader to note concerning these ethical impulses which habitually subordinate to themselves the impulses relating to the persistence of the individual,

and under certain conditions, and in certain connections, those relating to the persistence of the species, that if they have become prominent in our lives because of their value to our race in its struggle towards adaptation to its environment, then when we oppose the functioning of the corresponding ethical instincts we are thwarting actions which tell of the experience of the past in preserving our social life which we all acknowledge brings to us, as individuals and as a species, inestimable advantages.

It is of course barely possible that such opposition to our ethical instincts may in some cases conserve our individual lives, or may in particular instances act to foster continuance of the life of the species; but nevertheless it is clear that the rise of these ethical impulses teaches us that in the development of man these impulses, which we perchance oppose, have on the whole been those which have conserved the complex tribal life upon which our civilisation is founded, with all the benefits this civilisation brings to us as individuals, and indirectly to the species to which we individuals belong. If, then, we persist in this opposition we evidently run great risk of bringing about results which will be of direct disadvantage to our tribal life, and of indirect disadvantage to the individuals and the species to which it relates.

§ 8. And now let us restate in other words the results to which we are led by consideration of this contest between reason and instinct, approached by us, as it has been, from the instinctive side.

The reader will scarcely hesitate, I think, to accept the view that our impulses, taken as a whole, are voices within us that tell of instincts which have proved to be of value to our ancestors in one way or another. And if this be true it is certainly clear that, if any part of our race determine

after process of reasoning to act *without* consideration of any one of these instincts, there is a very large probability that some essential advantage will be missed by the branch of the race which so acts; and also a large probability that this part of the race that so acts *without* consideration of this instinct will suffer in the contest that is going on now, as ever; and that it will in the end, other things being equal, give place in the struggle for survival to that other part of the race that acts *with* consideration of this instinct.

This one thing at all events is certain, that in following a clearly marked instinct in any instance we know ourselves, with scarcely a doubt, to be supported in our action by the experience of our race; for the action to which the instinct urges us must almost certainly have been valuable to the race in the past, and in any event must have been of no material disadvantage to our ancestry.

On the other hand, it seems to me to be perfectly apparent that if we follow reason, where its dictates are in opposition to the clearly marked demands of a fundamental instinct, then we are undertaking a most hazardous course. It is true, indeed, that we may possibly be right, in some specific instance, for it is just possible that the variation of type that we propose, if we determine to act as reason dictates against instinct, may be of no disadvantage, and it is even possible that we may initiate what may prove to be an advantageous variation, one that may become effective to the advancement of ourselves or of our descendants in the struggle of life. But it must be granted that the chances of our being right in any such special variation are exceedingly small.

This will appear more clear when we consider that through the long periods during which any special instinct has been forming, an indefinite number of variations from

its leadings have doubtless been attempted and have failed to become effective; and there is a very large chance that this very variation, that we now propose to make, has been amongst those that have been tried with bad result. At all events we may be positively certain that through that long past, during which this instinct has been forming, such variant action as reason now dictates, if it has appeared, has *not* been effective; this being taught by the very existence of the opposing instinct.

B

§ 9. In order to verify the conclusion reached above, let us turn for a moment to the consideration of this question with the nature of reason in mind; and in so doing I think we shall find ourselves led again to the very same view.

It is scarcely needful for me to say that I am very ready to acknowledge that what I have called the elemental variant principle in organic life must necessarily on its face have been a most valuable, and indeed a necessary, factor in the evolution of that long line of ancestral forms to which we look back: for without the tendencies to special elemental variation from typical reactions, under the influence of special stimuli, the forces of nature would be without the means of adapting forms of life to the changes that occur in the varying environment.

If, then, reason is the latest elaboration of this elemental variant principle, and is, as it surely seems to be, at least the most important, if not the only, source of variation in the contest for survival in which we are directly engaged, then clearly reason in the form in which it is appreciated in consciousness has a most important function in our lives: for evidently the variations that reason dictates to us present to Nature the material for her most elaborate and delicate

experiments in the higher adaptation of our complex life to the changes in our very complex and very variable environment.

But whilst we acknowledge the importance for development of the tendency towards elemental variance, on the other hand we cannot fail here again to call to mind with emphasis the weakness connected with rational processes. In our introduction we noted the conviction, which has become forced upon us in the course of the study of science by the historical method, that we are exceedingly liable to be misled if we trust too implicitly to reasoning processes. For we must not allow ourselves to forget that there is a very great chance that in the course of our ratiocination we may unwittingly have made some false step. And why indeed should we weaklings expect to avoid such failures in our thought when we find that the noblest intellects of the past have not escaped logical pitfalls that seem to us now fairly obvious and oftentimes emphatically defined?

Then, too, we must remember the really enormous probability that we are partly or entirely unacquainted with some of the vital data that should properly enter into our consideration, data which, could they so enter into the current of our thought, would surely modify our judgment, would surely change the force or the direction of the demand which now arises in opposition to instinct.

It becomes evident, therefore, I think, that if all things are considered, we can scarce even hope, in any specific case, to avoid error in the variation that reason seems to dictate to us; and Nature will surely in the end stamp out ruthlessly the race that varies in any direction that produces a reduction of efficiency which is not offset by marked advantage.

§ 10. In the preceding sections we have considered

cases in which in general reason appears merely to dictate opposition to an instinct; but as we have seen in Chapters XVII. and XVIII. in all cases, although we do not often appreciate the fact, reason acts by the emphasis of some element in an instinct system. It is natural for us to find, therefore, a large number of cases in which the rational process will not appear as a mere opposition to our instinct, but in its true light as the emphasis of one impulse in opposition to another. Fear of infection may be emphasised by rational process until we persuade ourselves that it is proper to suppress the impulses which would lead us to aid those who are suffering from dangerous illness. Other examples without number will occur to the reader.

In this connection our position must be quite in line with that taken above. Where we find ourselves led by argument to permit an individualistic impulse to outweigh an impulse relating to the persistence of our species, or where we find ourselves led by reasoning process to allow an ethical impulse to be overcome by an impulse of import to individual or species, we should invariably remember that in the development of our race the impulses relating to the persistence of the species have subordinated those of purely individualistic significance; and that those of an ethical nature have in like manner subordinated both the impulses which have individualistic import, and in certain relations those also that have to do with the persistence of our kind through reproductive process.

We should conclude, therefore, that if as the result of reasoning we allow individualistic impulses to overpower those which relate to the persistence of the species, or if we allow either of these types of impulse to overpower the impulses of an ethical nature, then we are surely undertaking a most dangerous course.

It is true here again that there is a bare possibility that the variation we propose may prove to be an effective one for ourselves and for our descendants, but surely it must be granted that the probabilities of the variation being thus effective are exceedingly small, and the chances that the variation will bring disaster directly or indirectly are exceedingly large.

So here also, then, the truly wise course to adopt, even on purely rational grounds, is to regard seriously the fact that we are led by nature to the order of subordination which I have above described, and to look upon this fact as a preponderatingly effective element in our argument: to hesitate long before we presume to disturb or reverse this order of instinct subordination.

§ 11. Thus it has become evident that from both points of view, both from that taken in the consideration of the nature and function of instinct, and from that taken in the consideration of the nature and function of reason, we are led to the general conclusion that where reason opposes instinct the force of instinct must be treated as of the highest importance. Instinct tells us of racial habit that forces itself upon our consciousness in the form of impulse, and which exists in us as the resultant, so to speak, of the accumulated experience of ages; while reason tells only of special experiences within the ken of the individual and of those relatively few others of whom he can know.

It becomes clear then, it seems to me, that it is little less than utterly perverse, that indeed it is thoroughly stupid, to advocate lightly the adoption of any course of action that runs with strength counter to a deep-seated instinct. Where there appears an opposition in which

reason would lead to the adoption of such a course, then surely the truly wise procedure, even on purely rational grounds, is to take the existence of the instinct into consideration as a preponderatingly effective element in our argument.

II

§ 12. In the several sections which have preceded this we have enlarged upon the importance and value of following the impulses brought into consciousness by the instincts within us, in opposition to what appear as the dictates of reason. But there is another and diverse view to be considered; there is a special word to be said in reference to the importance under certain conditions of following the dictates of reason.

As we have already seen, the variant influence in organic life, of which reason is the latest elaboration, is the means which Nature employs in her efforts to perfect the adjustment of our increasingly complex organisms to the ever-changing environmental conditions in which we are placed: and surely this variation in accommodation to our environment is of deep importance, is in truth the basis upon which we must rest our hope that our race is to continue the progress in accommodation which we believe has been exemplified in the lives of our ancestors.

Instincts which are evidenced in consciousness by impulses, as we have seen, do in truth tell us of certain activities which have been of value to our ancestors, and which will be of advantage to our race also upon a recurrence of those conditions under which in the past these actions have been called forth. But it is easy to see that it may not infrequently happen that the impulses to these actions may be called forth when the conditions which have made them valuable are partly recurrent, but in some measure changed. In fact, in a variable and exceedingly complex environment this must of necessity frequently happen.

If, then, reason acquaint us with these changes of condition, and if after consideration we have no doubt

that these altered conditions make the expression of the inherited instincts, which the impulses indicate, dangerous to ourselves or to the race, then the propriety of our subserviency to these instincts is more than doubtful.

To make this point more clear let us consider some illustrations from the various types of instincts that have come under our observation in what has preceded this.

In the first place let us recall our observation that the instinct actions of our mere assimilative system, which work normally for the benefit of our whole organic life where the conditions of the environment themselves approximate to what is normal, may under variation of conditions work to the destruction of this organic life; and this just because they are unable to vary in correspondence to the changed conditions. The lungs of men living on the surface of the earth, close to the sea-level, are wont, by a certain degree of activity, to supply sufficient oxygen to the blood to serve the functioning throughout the whole body. But if we climb to altitudes where oxygen is rare, the failure of the lungs to accommodate themselves to these changed conditions compels increased heart action and wide nervous excitement which for many of us may be dangerous, and for some suddenly fatal.

It becomes pretty clear, then, that cases may arise where it will be our bounden duty to repress these instincts or restrict their expression. The wise adviser not infrequently saves the life of some ill companion by avoiding the shock of extreme joy or sorrow, by gently "breaking" news to him. A man who has a diseased heart, if he be rational, will himself quite properly avoid or repress extreme emotional reactions.

Again, the instincts which usually tend to individualistic

advantage may in similar manner be properly restrained by reason in certain cases. For instance, the instinct which would lead us to attack a dangerous enemy may well be curbed when we perceive that his strength is greater than ours. Then clearly "discretion is the better part of valour."

Turning from individualistic instincts to those of sexual import, and illustrating my point by an example, I think we may take it to be fairly clear that a man who knows he has inherited from a line of ancestors some serious physical taint is justified in opposing, or repressing by indirection, as the result of reasoning, the gratification of his sexual instincts, which would lead, so far as he can judge, to the birth of children who might not improbably turn out to be imbeciles or criminals; and we in our turn act properly in discountenancing marriage among those who are recognised as sufficiently opposed to the interests of mankind to be kept under governmental surveillance.

But our thought becomes more interesting when we consider the suppression, by reason, of the ethical impulses which relate to tribal life. For here we call to mind the fact that in the hypothetical social life to which these ethical impulses relate, we individuals correspond in many ways with the parts of an individual organism; and in correspondence with the demands for the stimulation or repression of the activity of special organs in individual life above considered, it seems most natural that it may be best at times for the social life, and for racial persistence, if certain of the ethical impulses in individuals be stimulated or repressed by artificial means, where the conditions differ widely from those which have existed whilst these instinctive habits were forming. It is thus that in certain com-

munities it may well be advantageous to the social body to restrict marriages, and in others to encourage them.

In still other cases where there is no appearance of the opposition of what are acknowledgedly diverse instincts, but where some one instinct stands opposed to what we know as an ideal end, reason may lead us after full consideration to restrain the expression of the instinct, to thwart its impulses. I shall give some examples of this opposition in the next section, and I shall therefore not pause here to illustrate this special point.

If all that we have just said be true, then it seems to me clear that if after such thorough consideration of the claims of instinct as we have above suggested ; in the course of which our impulses, and the natural order of their subordination, are treated as preponderatingly effective elements in our argument :—if after such consideration reason still urges us to action in opposition to certain marked instinctive leadings, then most surely ought we to feel ourselves called upon to follow reason's dictates.

But in all the cases where we allow reason to restrict our instincts we must note that in adopting such a course we should never allow ourselves for a moment to forget that in acting thus in opposition to racial experience we are taking a dangerous step ; for we act without having anything like an adequate knowledge of the consequences that will follow. We take a great risk that this variation which we propose may prove to be ineffective. And yet for all that it is clear that we should be willing to take this risk even though it be great ; that we should follow this course because we hope thus to further the developmental processes in this Universe in which we are but minute atoms, struggling for adaptation and efficiency. For, as we have so often said, the variant principle, of which reasoning is the

latest elaboration, is Nature's means of perfecting the adjustment of our increasingly complex organisms to ever-changing environmental conditions: and the hope of our race in the future must rest upon our ability to make such adjustments as completely as may be possible.

III

§ 13. It seems to me that our thought will be clearer if we study some illustrations of these contests between reason and instinct of more complex type, as we experience them in our every-day lives, and consider the decisions that seem proper under diverse conditions, at one time in favour of reason, and again in favour of instinct. So far as the balance in the contest appears to be delicate, the decisions I suggest are of course to be considered as expressing only my personal view.

Let us take first an instance in which impulses which relate to individual welfare are strengthened by reason, and thus gain sufficient force to subvert, or at least to hold in abeyance, those instinct actions which relate to the perpetuation of our species.

As we all know, young men and young women have an instinctive tendency to amatory passion; and it is the commonest thing for a young man and a young woman to fall seriously "in love," as we say, when they themselves realise fully that there is no prospect of the man's gaining for many years an income which will enable him to support a wife, and the children that might be born to her, in the same comfort that has heretofore surrounded the life of the lovers. Where the lovers would not naturally stop to consider such matters, their thoughts are likely to be turned to them by anxious parents or guardians. In such cases, in our modern complex life, reason thus often leads the lovers to think too much of personal comfort; warns them not to let their instincts carry them away; urges them to restrain the declaration of love, and to eschew matrimony.

Yet it is not seldom exceedingly doubtful to what extent

we should allow the racial instinct to be thus overridden by reason in such matters. If the powerful instinct be repressed, there is no little danger that the restriction may lead to morbid, neurotic, conditions; to hysteria or to more serious disorders; or even to the contraction of vicious habits of one kind or another. Or, what is a more serious matter, the repression may result in the quenching for all time of the capacity for deep-seated love.

On the other hand, if this powerful instinct be followed in opposition to reason, suffering may embitter life, and bring about a separation of feeling between those married under such conditions, if it do not lead to actual divorce, which carries with it so much social disadvantage.

So diverse are the conditions of our complex life that in no two such cases are the circumstances exactly alike, and thus it often happens that a right judgment is not easily reached. Lovers as a rule are too apt to take an optimistic view of the future and thus to favour instinct, forgetting the dangers of racial deterioration that go with extreme poverty. "Hard-hearted" parents and guardians, on the other hand, are likely to take too pessimistic a view of the extent of the hardships that go with deprivations of minor comforts; ignoring the joys that are gained in happy married life, and forgetting that poverty, when not extreme, is often the greatest incentive to full development.

But evidently here the balance is so fine a one that the proper course of action can only be determined after the most careful consideration, due weight being given to all those varying circumstances that make each such case so eminently interesting.

Let us take another example, in which the natural sexual instincts are emphasised by reason to oppose the ethical instincts which would normally govern in such matters; a

case which seems to me to be less open to doubt than that just considered. Under certain conditions in our own civilised life it none too seldom happens that a man or a woman of perfectly pure mind becomes convinced that love for wife or husband has become irretrievably alienated, although there may exist no valid grounds for legal separation. When under such conditions a deep affection arises towards another than his or her legal consort, it not infrequently appears to be utterly irrational to remain faithful to the vows taken in marriage.

But here the leading of the instinct which enforces permanency of mating, and which in our modern life is expressed in the demand for faithfulness to the marriage vow, certainly teaches us of habits which are of the deepest service to the social body, and therefore indirectly to the race; habits which have been gained with great difficulty by a small portion of men only, and which moreover are all too readily forgotten by the careless or evil-minded: furthermore, indifference to the voice of instinct which calls for the restraint we speak of, is likely to be followed directly or indirectly by resultants of far-reaching importance which cannot possibly be foreseen, and by an influence of example which may be in a high degree unfortunate.

It were better under such circumstances, it seems to me, to withstand the pain of repressed love; to bear the trial, in the interest of that general racial morality which our instinct tells us is of such fundamental value.

Let us now turn to certain cases which show opposition between the lower and the higher types of the ethical instincts.

It is not difficult for us to conceive of circumstances in which perjury upon the witness-stand might appear in the light of reason to present the only hope of saving the life of

a man charged with a crime of which we know him to be innocent. Here the instinct to preserve human life stands opposed to that lately acquired social instinct of high elaboration which leads us to avoid gaining advantage by perversion of the truth; reason emphasises the earlier-formed instinct, and tells us that less harm can come from the opposition to truth than from straightforward truth-telling. On the one hand, reason bids us to lie, in order to serve this fellow-creature; on the other hand, the higher instinct cries out against the perversion of the truth. Which voice shall we heed?

The protest of this higher instinct surely means that our race has learned by long, and doubtless bitter, experience that better results are attained in the long-run by expression of the strictest truth. Furthermore, a little thought shows us that it is entirely impossible for us to foresee the results of our perjury: it may seem to us perfectly certain that this act of ours will save our friend, yet the result may be of an altogether contrary nature; for the course of evidence may change, and our own contradictory statements may then really serve to invalidate our testimony in all respects.

In such a case it seems to me that it is wiser to follow the higher instinct, and take the evil consequences if they accrue.

One more example. The benevolent impulses within us are of marked force and power, and consideration teaches us that their function in the direction of social consolidation is of the greatest moment to the race. Now it not infrequently happens in these days that we find our reason telling us that harmful results accrue to those whom we carelessly aid as we follow the leadings of these racial instincts.

The question then arises, shall we crush down the

benevolent impulses within us? And here it seems to me that the answer is a decided negative: under all conditions must these benevolent instincts be most carefully conserved and fostered within us, and the greatest care should be given by intelligent philanthropists to avoid quenching in others, who do not see clearly, these impulses that lead to such valuable results. Thoroughly vicious are the arguments one so often hears from half-fledged sociologists, from men who call themselves "individualists," who would break up benevolent institutions, on the ground that they oppose Nature's efforts towards individual perfection; for they overlook the fact that these same benevolent impulses which they would crush are Nature's very late acquirement in her strife for racial, and indirectly therefore for individual, development.

But, notwithstanding all this, reason here also speaks in clear tones, even after we have given ear to all that instinct has to tell; and hence it becomes our duty to take steps, not indeed to quench the benevolent spirit within us, but to guide it from channels in which it appears to us to produce evil results to other individuals, and into channels in which the evil results which we foresee will not follow. Yet even here we should avoid over-confidence: the results which may follow deviation from these racial leadings are so diverse, and so impossible to foresee, that we should take our steps of variation from the racial type with the greatest deliberation and most watchful care.

§ 14. Before turning to the next point of importance I must ask the reader to note that if the view above expressed be correct, then instinct and reason in a certain sense tend to exclude one another; as broader organic forces tend to exclude those that lead to elemental variation, and *vice versa*. But I wish here again to make it perfectly

clear also that this view does not imply an opposition between the two principles in the sense that men who are led by instinct can be said to be necessarily irrational. Nor does it imply that rationality involves the total annulment of instinctive forces; for, as we have already seen, there is every ground for the belief that reasoned actions are instinct actions of a special type, determined by the emphasis of instincts of simpler form which are partial or elemental in a wider instinctive system.

IV

§ 15. We have thus reached what seems to me to be a just apprehension of the relative weight that should be given to instinct and reason where they appear opposed in consciousness.

But now I wish to ask my reader to note again that racial efficiency is on the whole dependent in the first place upon the subordination of the individual variant forces, where they are emphasised by reason, to the racial forces present to us in recognised impulses; for although reason's dictates may determine some special value for some special individual in some special case, this is no warrant that the same action in another individual would lead to like valuable result; and, on the other hand, the very existence of the opposing instinct teaches us that there is very little likelihood that such generally valuable result will accrue.

Even if we make the bold supposition, to which hasty egoists are sometimes led, that reason's dictates determine special values for the individuals who obey them with ear deaf to the voice of broader racial instinct; still there is no proof that the values are racial, and that the success of these individuals will result in advantage to the race; in fact, as I have said above, the very appearance of the opposing impulse teaches us that there is little chance that such racial advantage will result: and if the variation be not advantageous, racially speaking, then Nature will surely seek means to crush it out.

This consideration clearly teaches us that we should, in all doubtful cases, carefully avoid leading others to follow us in obeying reason in opposition to instinct, however willing we may be to take the risk of variation for ourselves.

As a matter of fact we find this superior value of what is recognised as instinct acknowledged in every-day life by the common man. Common-sense places character above intellectual brilliancy; and character is our name for the complex of impulses which guide a man, these impulses, apart from personal acquisition during life, being of instinctive origin, born to him who is led by them, belonging to him as a member of a race. The common-sense disbelief in, and lack of sympathy with, the man who is led by deliberative process rather than by impulse, although common-sense is here often misguided, must be acknowledged to be due to a deep natural insight and to be on the whole most valuable and reasonable.

The rationalistic philanthropist, for instance, is distrusted by the average man who is filled with the benevolent spirit; and this is not because the former is believed to be untrustworthy, but because his less thoughtful neighbour has learned the habit of trusting to his own best instincts and feels that his rationalistic friend is thwarting them.

The average man is much more sympathetic with the young couple who have rashly married, and who find themselves burdened with the care of a family, than he is with those who with forethought avoid companionships that may lead to love and marriage and the rearing of a family; and he is far more likely to aid to success the former than the latter.

In both these cases common-sense refuses to listen to reason and upholds what it knows as its instincts, so far indeed that reason's teachings where clearly proper are often most unfortunately disregarded.

And indeed the rationalist, on the other hand, with all his foresight is very likely to be misled in his cool calculations. To refer again to the cases mentioned above in illustration; the rationalist fails usually to recognise

that the average man, if he lose in himself the sympathy that is expressed in benevolent action, loses also the return sympathy of his neighbour, and the helpful co-operation which that sympathy makes possible. The astute bachelor who quenches his love because he cannot see the certainty of prosperity in his future is too apt to forget that the average mass of successful men are men who have married and have reared families, and who therefore feel a fuller sympathy with the young man who is fighting, perhaps with reckless courage, to gain a place for his family, and feel a greater desire to aid him than they do to aid the young man who quenches all affection because he fears the future.

II.—THE BALANCE BETWEEN REASON AND THE RELIGIOUS INSTINCT

§ 16. With the light thrown upon our path by the conclusion of the first part of this chapter we may now turn confidently to the closely related problem concerning the relation of Reason to the Religious Instinct. Here we have a new order of instinct which appears to have been formed for the very purpose of opposing variation, and for the emphasis of instinct: what shall be our answer where variant reason demands the suppression of this highest instinct, the religious instinct? Shall we invariably close our ears to reason in such cases, or are there times when reason's dictates shall be obeyed and the religious instinct repressed?

We have argued that religious activities are the expression of a true instinct; and that this religious instinct must be looked upon as our highest instinct because its function is regulative of reason, tending to bring about subordination of variation to the typical reactions lower than those expressive of the religious instinct itself, in case variation becomes over-influential.

That this religious instinct is of the greatest importance is necessarily implied in this statement; but if it be a true instinct, the relation of its functioning to that of reason cannot differ fundamentally from the relation we have approved for instinct in general.

As we have already seen, it is of the greatest importance that we should act in accord with our reason after having taken full account of the racial forces that our instincts press upon our notice. So here we are compelled to hold that we should act in accord with our reason after having taken

full account of the teaching of this highest of all instincts. Acknowledging the nobility and weight of the religious instinct we surely should act in relation to its teaching with deep reverence and with a just appreciation of the overwhelming force of its teachings. But, although never too ready to act in opposition to this religious instinct, nevertheless where, after its guidance has been given full weight, reason still speaks in opposition, we should be willing, though with fear and trembling, to take the risk involved in the vital variation from the forms of racial action that this religious instinct demands. We should take this very great risk that this variation of ours may be ineffective, acting thus in the interests of progress in the Universe in which we are but small and unimportant parts.

In other words, we should be willing to act in accord with reason in opposition to even this highest of all instincts, if reason's demands still appear to us to be effective, after reverent and full consideration of the dictates of this noblest instinctive racial force.

But, on the other hand, the very acknowledgment of the risk we are taking in this variation from racial dictates should lead us to the greatest caution in guiding others whom we influence. If there be a chance that we are right, there are many more that we are wrong. Moreover, we must frankly acknowledge that common practice and normal beliefs are closely related to instinctive capacities, that they to some extent at least represent the effective experience of the race; if, then, we displace them we should at least use the greatest care not to displace their resultants in the life of action. We should avoid with the greatest care the guidance of others in paths which we acknowledge are filled with dangers, although with these dangers we

believe ourselves prepared to cope ; for they whose insight differs from ours may all too easily fall in the way, because they lose the guidance to which they have been accustomed to trust, and fail to gain any substitute for what is lost.

CHAPTER XXII

ETHICS AND HEDONISM

§ 1. THE student of Ethics who peruses these pages will without doubt have noticed already that the ethical doctrines which have unfolded before us as the result of our study of impulse have been stated in terms which make no reference whatever to the theories of hedonism which fill so many pages of all modern ethical treatises. I think, however, that no step in our argument has been the less sure because of this omission; and it seems to me to be a fact of no inconsiderable significance that when we study the nature of instinct, and consider the rise of impulse and the results of the clash of impulses, we find ourselves led to state certain doctrines of ethical importance with entire disregard of hedonistic hypotheses. This is the more significant for me for the reason that in many of my previous studies my thought has been centred upon alge-donic problems, and this would naturally lead me to treat any hedonic relation as of major importance; for this reason I feel that the necessity of the dependence of ethical upon hedonic doctrine is denied in the very ease with which our argument has developed without reference to the relation of pleasure to the processes involved. Furthermore, when one comes to consider this matter in the light thrown upon it by a correct psychological analysis, it becomes perfectly clear to my mind that the independence thus suggested must be maintained.

§ 2. Under the theory that I defend, pleasure and pain are qualities which together with indifference (the transition point between the two) are of such nature that one of them must, and, given the proper conditions, any one of them may, belong to any element of consciousness.¹

In what follows I shall assume the correctness of this doctrine. It is to be noted, however, that the positions here maintained are by no means entirely dependent upon this theory, nor do they become untenable even if this theory be not sustained. The reader will note, however, that this algedonic hypothesis is strengthened in no small degree by the perfect manner in which it harmonises with the facts here considered.

¹ It will also be recalled that I have suggested that as pain, indifference, pleasure, are phenomena of quality in relation to psychic elements; so their physical coincidents are phenomena of quality in relation to the activity of neural elements, being determined by the relation of action to the condition of nutrition in the neural substance concerned. This may be expressed as follows: If "a" represent the psychic coincident of a physical activity "A," which is usually produced by stimulus "S," then

Physical side.	Psychic side.
If "S" produces "A" we have	Content "a" with no pleasure and no pain (this is usually spoken of as a state of indifference).
If "S" - n ,, ,, ,, ,,	Content "a" and pleasure.
If "S" + n ,, ,, ,, ,,	Content "a" and pain.

Or to state the relation as I have done elsewhere: when the stimulus produces in the nerve concerned *more* activity than is normal, it is because the neural substance is in a condition of hypernutrition, which enables the stimulus to set free surplus stored force: then we have not only the content which is the psychic coincident of the activity referred to, but also a qualitative state which we call *pleasure*.

When the stimulus produces in the neural substance concerned *less* activity than is normal it is because the neural substance is not sufficiently nourished, and is unable to react completely: then we have not only the content which is the psychic coincident of the activity referred to, but also a qualitative state which we call *pain*.

When the conditions of stimulus, and of nutrition, and of action are normal, we have neither pleasure nor pain; and then, these qualities being lacking, we experience what is usually called a state of indifference.

§ 3. Let us now consider the relation of pleasure and pain to our activities. Our actions when viewed objectively consist (1st) of typical organised instinct actions; and (2nd) of modifications of these instinct actions, variations as we call them. These variations, as we have suggested, are determined by the strengthening of elemental, partial, reactions of certain elementary parts of wider systems, which as a whole give rise to those wider instinct actions from which the divergence is noted. In case of reaction without variation these elemental partial actions, if they occurred at all, would occur in less vigorous form.

§ 4. On the subjective side, corresponding with Class 1, we have the "instinct feelings," the coincidents of the "instinct actions." These instinct feelings may be either pleasurable or painful, or may be of mixed algedonic quality, but neither their pleasure nor their pain moves our volitional life in any direct way. If certain of these actions are pleasant, in that very fact they indeed tend to persist: and, on the other hand, if they are painful, in that very fact they tend to be suppressed; their algedonic quality may thus affect our *future* conduct, but only by influencing in the future the springs of action. So far as these pleasures and pains are related to the actions of the moment, when the instinct actions occur and their instinct feelings appear in consciousness the end in us is already reached: the antecedents to this end are then no longer of importance in reference to the action which is at the moment developed. But it is with these antecedents to the action that ethics has to deal; hence the algedonic quality of the instinct feelings is without immediate ethical significance.

Inasmuch as what we usually speak of as instinct actions are not determined by prevision of result to be attained, no one would claim in the case of recognised

instinct action that conditions of pleasure or pain about to be attained in the act determine the action itself; this was determined by the form of the stimulus and the conditions of the organic system reacting.

§ 5. This being true of what we usually call instinctive reactions, our interest is at once concentrated upon the process involved in variation from these typical forms of reaction.

If it be true that variation is but a special form of instinct action, as I have suggested in Chapter XVII., then the argument just made must with certain changes of expression apply as well to variant actions as it does to recognised instinct actions; and we must hold that the algedonic quality of the antecedents to action, even in the case of variation, is without immediate and direct ethical significance. It may be well, however, to examine these variant actions from a different point of view, which leading us to the same conclusion materially strengthens us in our contention.

As we have already noted, wherever instinct actions which are of sufficient importance to affect our mental life are inhibited, we find appearing in consciousness what we call impulses, which are often preceded by desires; upon these elements our reasoning works, and the result is what we know psychologically as the act of will which leads to conscious variation. Now all of these four processes involve mental activity, which under the algedonic theory which I defend must entail the presence of pleasure or of pain in some degree.

§ 6. In considering the process of variation in relation to algedonic theory we may begin by speaking of the act of will, for a few words on this subject will suffice us, inasmuch as the reader will perceive that ethics does not have

to do directly with the act of will but with the antecedents to the act of will.

Will as it appears in the act of choice is the outcome of a conflict of impulsive ideas. This conflict implies repression of opposed instincts, and therefore a state of systemic pain. The resolution of a conflict implies the breaking into activity of one of the opposed elements, which will act pleasurable, as all action after repression is pleasant; on the other hand, it also implies the increase of the pain from the elements opposed to the one that develops, these elements being now positively prevented from developing. Habit apart, however, the pleasure in connection with the winning element must as a rule over-balance the repressive pain of its opposed elements, largely because the pleasurable persistent idea through its intensity will take possession of the field. Hence it may be laid down as a rule that the act of will *per se* is pleasurable.

But here again, as in connection with the instinct actions above discussed, it is evident that when the act occurs, the voluntary act in this case, and when the algedonic qualities connected with the act appear in consciousness, the conclusion of the process is already reached; the antecedents to the will act are therefore no longer of moment in reference to the action which is developed, and it is with these antecedents only that ethics has to deal. The algedonic quality of the will act cannot affect the action to which it is attached; it may indeed affect our future conduct, but even then only by influencing in the future the springs of action which we shall next consider.

§ 7. Turning now to the antecedents of the will act we find that as a rule they begin in desire and end in impulse, and that the reasoning process arises in connection with both desire and impulse.

As I have already stated,¹ the will act is necessarily preceded in consciousness by a psychic state which, if it is attended to, is felt either as an impulse which is recognised to involve restriction, or as a conflict of impulses. An impulse consists of (1) the psychosis of the painful obstruction of systemic motor activities, and (2) the persistent image of the realisation of a distinctly motor activity, of which latter we judge in reflection that, were it realised, it would bring relief of the obstructive pain: this judgment, however, being of course no part of the psychosis of impulse but resulting from general experience. It appears to me that neither the pain of repression (which under my theory is due to systemic activities apart from the organs whose actions are inhibited), nor such algedonic quality as attaches to the image of the unrealised motor activity, can be spoken of as the cause of the motor activity that is to follow. They do serve to indicate the conditions of those activities of neural elements which are represented in the consciousness of the moment; they serve to show us, when we happen to be able to review the process in retrospect, what elements in the antecedent to the act had efficiency; but they themselves surely cannot be said to originate that efficiency unless the algedonic theory which I uphold is altogether incorrect. It is to be noted that the expression of an impulse is usually a pleasurable action, as activity after repression always tends to be pleasant in some degree; this fact appears of importance later on.

The conflict of impulses is often preceded by a conflict of desires, which are the first marks in consciousness of the inhibition of instinct actions.

As I have indicated above, and also in my *Pain, Pleasure, and Æsthetics* (p. 227), impulse may appear without

¹ Cf. Chapters XIII. and XVIII. above.

the antecedent appearance of desire because of the very power of the instincts which cry out for an opportunity to function. Desire, on the other hand, when it does appear in connection with impulse, precedes impulse.

Now a desire consists (1) of the painful psychosis of not distinctly motor obstruction; of effort by the system to force channels for the "pent-up stream of action" (Ward), *i.e.* to get around or break down the restriction to the realisation, *i.e.* a *craving*: and (2) of the persistent image of the realisation of an unrealised idea, which is not a distinct motor idea; which idea, if it could be realised, we learn in reflection would bring relief of the desire pain; neither this act of reflection nor its outcome, however, being necessary to the desire.¹

Here again it seems clear that neither the pain of repression, nor such algedonic quality as attaches to the image of the unrealised idea, can be spoken of as the cause of the motor activity that is to follow; rather are they the indication of the conditions of these activities of neural elements which are represented in the consciousness of the moment: they serve to show us what elements in the activities antecedent to the appearance of the impulses had efficiency; but they themselves cannot surely be said to originate that efficiency. Here it is to be noted also that the satisfaction of a desire is without exception pleasant *per se*, as activity after repression always tends to be pleasant in some degree.

Similarly in the case of the reasoning process, which works upon desire and impulse, either consciously or by the artificial emphasis given from within the field of inattention, *i.e.* from the ego, to the unrealised idea; it seems clear that here too the algedonic quality, usually pleasurable, is in-

¹ Cf. my *Pain, Pleasure, and Æsthetics*, p. 275, and Chapters XIII. and XVIII. above.

dicative of the conditions of activity rather than originative of this activity.

§ 8. It appears, then, that pleasure and pain are side issues, so to speak, in relation to the mental states antecedent to the act of will; marks of what is happening rather than the causes of the action; influencing indeed the trend of future activities, but in no sense serving as the stimulus to the activity under discussion; and it thus appears quite clear why it is that ethics, when treated in connection with the psychology of impulse, develops without relation to hedonic theory.

§ 9. I realise that in what has preceded this I have not stated the real question at issue between the ethical hedonist and his opponent; and this because I have been aiming to show that the questions concerning which they contend, most interesting in themselves to psychologist as well as metaphysician, are quite aside from ethical study as we have approached it; and I may add that it seems to me that undue importance is attached to these contentions in current ethical studies.

The basis of the controversy, it appears to me, lies in the longing of the human soul for some guiding rule of conduct. The man finds constantly, as he reviews his life in retrospect, that he has acted unwisely and sinfully: he longs to discover some way by which he may avoid foolishness and sin. Looking back of the developed acts themselves, and of the impulses which press for expression, he finds in consciousness the relatively long and slow preliminary stages of desire, and he asks himself whether there is not some characteristic of conflicting desires which may serve as a guide to him, so that in the future he may avoid the folly and the sin.

In the course of this introspective study he has struck upon the fact, already noted, that the outcome of desire and of impulse in action is a pleasurable action, and having assumed the postulate that desire is determined by the idea of pleasure to be reached, he has developed the theory that the most powerful of conflicting desires determines the act, and that, therefore, the act is determined by the idea of the greatest pleasure to be reached. In connection with this he endeavours to work out a practical guide for conduct. How far he succeeds we shall not attempt to inquire in this chapter: but we shall consider the validity of this theory in the light of the psychological analysis which has preceded this.

§ 10. The main point at issue between the ethical hedonist and his opponent is this, that the one claims and the other denies that the desire for pleasure (or, what the hedonist incorrectly claims is the same thing, for the avoidance of pain) is the cause of all our voluntary activity. Do we, for instance, desire the pleasure of eating when we are hungry, or do we desire the food which is to assuage our hunger? In other words, is the idea which becomes emphatic, and which determines the desire, the idea of a pleasure to be reached; or is it the idea of an object to be attained, in the attainment of which, as a matter of fact, we find by experience we gain pleasure? I hold to the latter view, which in modern times has such well-known advocates as Green and Sidgwick; it would indeed be wasting words for me to discuss this question did it not seem to me that the way in which we have approached the subject enables us to give answer to the problem quite positively in favour of the latter of the two alternatives.

Much of the difficulty that has arisen in reference to this point has been due, it seems to me, to an inadequate

analysis of the psychic processes involved, to the assumption, which I consider invalid, that it is possible to have a revived "idea" of a pure pleasure as mere pleasure, so that the non-realisation of this idea of pleasure may induce a desire.

We can see without difficulty how it is possible to have an idea of an object which by its emphasis may stimulate a desire, for desire involves the emphasis of a non-realised idea; but if we use the term "idea" without change of meaning, it does not appear to me to be true that we can have an idea of a pleasure *per se* which can stimulate a desire. For what we mean by idea in this case is what is most frequently nowadays called a representation, that is, a presentation of a psychic occurrence which we feel to have belonged to our ego in the past but which is not fully realised at the moment, being notably lacking in the elements which would constitute it a perception. If it be true that pleasure is a quality which under the proper conditions may belong to any element of consciousness, then this idea, this "representation," may have the quality of pleasure inherent in it under the proper conditions, but the pleasure itself cannot appear without some "idea" to which it is attached.

It is true that certain presentations have emphatic pleasure connected with them so invariably, or apparently so indissolubly, that we find it difficult to disconnect the quality from the idea, and thus in common thought we come to consider the pleasure as the idea; we thus, as Professor Woodbridge has put it,¹ practically use the word "pleasure" in two senses, "the psychological" and "the material senses," and find it difficult to avoid the substitution of the term "pleasure" with the material connotation which has become attached to it, in place of "pleasure" with its correct psy-

¹ *International Journal of Ethics*, vii. 4.

chological significance. What is more, we learn by experience that the satisfaction of desires is so closely connected with pleasure-getting that the separation of the object of the satisfaction of desire from the notion¹ of pleasure as inherent in that satisfaction becomes all but impossible even for many of those who are accustomed to careful self-examination.

We may experience in consciousness a pleasant occurrence: following this pleasant occurrence we may have an "idea" of this occurrence (which was pleasant), and this "idea" indeed may itself be pleasant; but, on the other hand, it may at times be painful. Or this "idea" may lead to reactions that are pleasant; but, on the other hand, it may at times lead to other reactions which are directly or indirectly painful. Of the pleasure itself, properly speaking, we can have no "idea" in the sense of revived presentation, pleasure being a quality of the mental element involved in our thought. The pleasure in connection with the original occurrence was of a qualitative nature; so in case of the ideal thought of this occurrence the pleasure connected with it is qualitative.

We can no more have a revival of pleasure apart from a content which is pleasant, than we can have a revival of a special intensity without a somewhat that is intense, or a revival of a special realness without a somewhat that is real. So far as we think of pleasure, and of intensity, and of reality, except as attached to some content, we are not discussing the experienced qualities themselves, but abstractions which we have made for purposes of thinking, which abstractions are themselves contents with all the qualities of intensity, realness and pleasure-pain.²

¹ This notion of what we call pleasure, it is to be noted, is, as we shall see below, itself an abstraction, an "idea," and not one necessarily pleasant, but subject to the same algedonic relations to which all ideas are subject.

² Cf. Ward, Art. "Psychology," *Ency. Brit.* p. 74.

§ 11. There is a difficulty which may occur to the reader in connection with this analysis which it is worth while to consider at some length. If it be true that pleasures and pains cannot be revived *per se*, how is it that they can be compared one with another as to fulness, for instance, how can they be balanced one against another? for comparison involves revival of the contents compared. I answer that this comparison is made, not by the revival of the pleasures or pains, but by the revival of their imagined effects upon us.

If this seem a position difficult to accept, I would point out that a similar position must be maintained in reference to the quality of intensity which bears so close a relation to algedonic quality in many respects. My claim is that intensities are also compared and weighed by revivals of the effects we judge they would produce, although of course the process is in ordinary cases in no sense brought into consciousness.

The intensity of moonlight and the intensity of sunlight can easily be compared. That the intensities of the ideas of sunlight and of moonlight are, however, not revived in this process of judgment becomes clear when we make the comparison between the thought of these intensities immediately after stepping into the house on a bright moonlight night. We are likely then to say, "It is *almost* as bright as day." Here the intensity of the revival of the just-experienced moonlight is evidently much greater than the intensity of the revival of the sunlight experienced some hours ago; yet we do not hesitate to say that the intensity of the day's sunlight was greater than that of the present moonlight.

Travelling in a rushing railroad train and looking out of the window I see a white horse with a black tail, and after riding a mile, another white horse with a white tail. A

moment later I compare the two without difficulty, and if I am asked the question as to the intensity of the two impressions I am willing to assure the questioner that the two impressions were equally intense, I cannot help thinking them so. Yet it is evident that the intensity of the revival of the horse seen a mile back must be less than the intensity of the revival of the horse just seen. The judgment as to the intensities is due to comparison of the revivals of unanalysed and unanalysable presentations determined by the effects of the intensities upon us.

So it is with the comparison of the qualities of pleasure and of pain. The revival "idea," the so-called representation, of a pleasure, is part of the total content, is not itself necessarily a pleasure (although it *may* be a pleasant revival) but is a distinct partial presentation in the midst of, or part of, the total complex presentation of the moment of revival. And so of pain. I judge that the pain experienced in the drawing of a tooth two years ago was the same as the pain experienced in the drawing of the corresponding tooth on the other side of my jaw yesterday, and I make this judgment not because I have revived the two pains; the intensity of the revival of the experience of two years ago is evidently much less than the intensity of the revival of the experience of yesterday; the revival of yesterday's performance is painful, and the revival of the performance of two years ago is not painful at all; nevertheless I judge that the intensities and the pains were equal, and I make this judgment by the comparison of two "revivals" which are wont to be called (but incorrectly) intensities of pain, which are distinctly contents, presentations; I make this judgment as the result of a comparison of the effects produced in my conscious life in the two cases.

This view is corroborated by the well-recognised fact¹

¹ Cf. Prof. Sidgwick, *op. cit.* p. 143.

that pleasures and pains from widely different sources are not easily compared. This fact would be inexplicable were the pleasures and pains themselves revived; but it is a necessary implication of the view here maintained: for where the source of algedonic quality is very diverse, the effects must be diverse, and there must be a lack of common elements in the total experiences, which in turn will make comparison difficult.

§ 12. If all that is claimed above be true, then the postulate that desire is determined by the pleasures to be gained, as stated in § 10, upon which the whole hedonistic theory depends, turns out to be meaningless.

The facts upon which, through misconception, this postulate has been based seem to be simply these; that the idea which in being emphasised in thought calls out desire, is an idea which if realised would give us pleasure in the realisation: and furthermore that while it is not an idea of a future pleasure, it is itself frequently a pleasant idea; and this for the very reason that it usually arises from the ego "spontaneously" as we say, and avails to hold attention, notwithstanding obstructive restriction; spontaneous attention and pleasurable content being always coincident.¹

¹ It is therefore not correct from the psychologist's point of view to state the hedonist's position as it is commonly stated, namely that my acts are determined by the idea of the greatest pleasure; rather is it more correct to state it as Leslie Stephen does (*Science of Ethics*, p. 47): "It is more accurate to say that my conduct is determined by the pleasantest judgment than to say that it is determined by my judgment of what is pleasant."

Where the case is one which is usually described as a desire to avoid a pain, I should state it thus: the idea of the action or object which will avoid or negate the disturbing occurrence which we remember to have attached to the pain,—this idea is usually pleasurable, and it also stimulates in us the desire for the realisation of those actions or objects. The object of desire is not *directly* related to the production of the painfulness of restriction, which latter is determined by elements apart from those active in defining the object,—a fact which seems to argue against the notion that the conscious spring of action lies in the attempt to free oneself from the restrictive pains involved with the contemplation of the desired object.

This, however, does not take away from the fact that desire is also strongly coloured with pain in consequence of the restriction of the realisation of the idea, desire as a whole being indeed more painful than pleasant; nor does it take away from the fact that pleasure of satisfaction is in many cases entirely unconnected in mind with desire, as for instance when we desire to remember the name of a man or of a botanical specimen. The reader will note that there is nothing in these facts which necessarily involves the notion that the most pleasurable idea productive of desire will be, or ought to be, sufficient to produce action.

§ 13. It has been suggested by a critic that I have misconceived the position of those whom I oppose: that no hedonist worth considering really means that we desire pleasure in abstraction from the experience that is pleasant; that the logical hedonist would say: "When I desire the eating of food, that being a pleasant experience, I desire the whole experience with all its features, but I desire it in proportion to its pleasantness: the discussion whether pleasure taken simply in itself is any more representable than intensity is therefore irrelevant."

In answer to such a criticism I would say that if the question of the revival of pleasure *per se* is considered irrelevant, then the hedonist must hold that it is the pleasantness of the revived idea which determines our desire and the resultant act of will. But it is very certain that the pleasantness of a revived idea is in no sense co-ordinate with the pleasure of the past activity which is represented at the moment of desire. It is not true that the revival of a past pleasant experience is necessarily pleasant; in fact, the revival of the very pleasantest of experiences of the past may itself be perfectly "indifferent," and the revival of the most painful experience of the past

may be equally indifferent or even pleasurable to some degree. The revival of the pleasant experiences of my boyhood in exploding fire-crackers is not now a pleasant revival: the revival of my painful experience in having a tooth extracted five years ago is now as purely an indifferent revival as I can experience.

But if it be true that the pleasantness of a revival is in no sense co-ordinate with the pleasure of the past activity which is represented in the revival, then it is clear that if our acts were guided by the pleasantness of the revival we would seldom if ever be able to act in a way which would bring us the greatest pleasure or the fullest pleasure in the long-run.

And yet it is not denied, of course, that at times we can so act; and beyond that, whilst I do not believe we always or even often (relatively speaking) make the attainment of future pleasure our end, still I think we may do so and with some success, and this I think will be acknowledged. Indeed I think it true that on the whole where other impulses do not interfere (as they very often do) our voluntary actions tend to correspond with those which would result in the production of our greatest or fullest pleasure in the long-run. And that this is generally acknowledged is clear in the fact that the average hedonist, whose doctrines I am here combating, is able to hold with some degree of plausibility that introspection shows us not only that we can, nor only that we often do, but that we always do and always must, act to produce that result which will on the whole give us the greatest or fullest pleasure.

§ 14. But suppose it be claimed that it is not the pleasantness of the revived idea, but the revival of a pleasant idea, that the hedonist would make the source of action. The phrase "the revival of a pleasant idea"

either implies that a pleasure itself can be revived, and such revival of a pure pleasure we have already argued is impossible; or it means a revived idea to which not the quality of pleasure but the concept of pleasure is attached.

It is of course not an impossible hypothesis that the revival of an idea to which the concept of pleasure is attached alone draws us to action. But, as I shall show in § 4 of the next chapter, a rule of conduct based upon this hypothesis would fail altogether to prove of value to us.

§ 15. Before leaving this subject let me add a few lines concerning a point which is of interest here. The analysis we have made seems to carry with it a virtual denial of the ethical hedonist's position, and we are thus enabled to account for the unwillingness on the part of ethical students to accept the hedonist's doctrine even where they have been unable satisfactorily to reply to their opponent's argument.

But if it be true that the hedonistic theory is based upon an incorrect psychological analysis, then it ought to be possible to account for the persistence of this doctrine, and this I think it not difficult to do. I have elsewhere¹ called attention to the error, common amongst psychologists as well as laymen, of classifying pleasure and pain together with the emotions. Emotions are instinctive phenomena, as the word "instinctive" is commonly used. Pleasure and pain, on the other hand, are qualitative phenomena, which attach not only to these instinctive phenomena but also to other mental phases than those of such instinctive nature. Pre-eminently, however, they attach to that type of instinct feelings which we call the emotions, and this leads to an

¹ *Pain, Pleasure, and Æsthetics*, chap. i.

apparent identity between these two diverse mental states. Pleasures and pains are often, but quite improperly, classified as emotions.

It is quite natural indeed that the every-day thinker should speak of pleasure and pain as emotional, for the reason that he finds the most markedly algedonic part of his mental life to be the emotional part. Nor in view of the facts is it much more remarkable to find theorists trying to uphold a psychologically vicious and baseless atomistic theory that emotions are sums of pleasures and pains.

This identification of pleasure-pain with emotion being thus commonly accepted as correct, it is not at all surprising that the error in ethical doctrine to which we refer has been made. For moral activities would not appear as such were there no conflicting concurrent instincts: when the instincts conflict, then arise the impulses with which our moral codes have to do. But pleasure and pain as we have just seen being currently held to be of the nature, and by some thinkers to be the very elements, of that class of instinct feelings which we name emotions, it certainly is not at all to be wondered at that the importance of the connection between pleasure and pain and impulsive ethical activities has been exaggerated, and the nature of the connection misconceived.

There is another ground for the persistence of the errors we are considering. As we have already seen, variation through voluntary action involves the emphasis of an action which is partial in relation to the typical action of the system of which it forms a part. In the most emphatic of such cases of partial action the emphasis is that of an individualistic instinct in opposition to, or out of relation with, an instinct of significance for the social system of which we individuals are elements. In such emphatic

cases voluntary variation is evidently due to individualistic reaction, and hence it is not unnatural that we should tend to identify our choices with our impulses to self-gratification, and should thus find apparent evidence in self-examination in favour of the hedonist's claims.

CHAPTER XXIII

THE RULE OF CONDUCT

§ 1. As we have said in the preceding chapter, foolish and sinning men have from time immemorial been endeavouring to discover some rule of conduct which, if followed, would enable them to live without folly and sin, and to avoid thus the upbraidings of conscience within them. We have seen that some theorists, having been struck by the intimate relation between pleasure and the desire preceding action, have based upon this relation, as they have interpreted it, a rule of conduct determined by the supposed pleasure which is pictured at the moment of desire. But we have also seen reason to believe that the nature of this relation of pleasure to desire had been misinterpreted by these theorists, and this would seem to warrant us in passing over without further consideration the hedonistic doctrine of moral action founded upon this misinterpretation.

The hedonistic doctrine, however, in its developed forms has gained so strong a hold upon thinking men and women, and appears to have led to so much noble unselfish devotion to the welfare of humanity, that it seems desirable to ask whether a satisfactory rule of conduct can be found, if we express the old formula in terms of what we have concluded is the true relation between pleasure and desire.

§ 2. The ethical doctrine of egoistic hedonism of ancient lineage may be stated as follows: each voluntary act is

determined by the most effective desire experienced at the moment of willing; but each one of us desires his own pleasure, and he desires this always in proportion to the magnitude of the pleasure which he pictures; hence it appears that we always act voluntarily to attain our own pleasure, and we may with propriety adopt this rule of conduct; *examine carefully the scale of pleasures desired, and seek to gain that pleasure which, when all is considered, seems likely to prove the fullest.*

So few thinking men now defend this extreme doctrine that it would seem scarcely worth while to consider it at length did it not lead us naturally to the study of revisions of the doctrine which have great influence in our day.

From a narrow point of view the statement above made might be held to mean that as a matter of fact we always will to do that which will produce the most pleasant act, and this being assumed it might also be affirmed that we should endeavour so to will whenever we find ourselves called upon to decide upon a course of action.

Although no one of authority can now be found who would uphold such an interpretation of this formula, nevertheless it is tacitly accepted by many thinkers; it may be well, therefore, before passing to the study of more acceptable interpretations to note briefly the reasons why it appears clear that we actually do not, and for the most part cannot, will in the direction of the pleasantest immediate reaction.

In those cases where we determine our conduct to a special end there must be a questioning, a conflict of impulses. The conflict involved with hesitancy and doubt is resolved in the act of will, in choice. The question before us is whether this choice always involves the attainment of the greatest immediate pleasure. Is it true that

the one of the two conflicting impulses which wins in this act of will, results in immediate reactions pleasanter than those which would have occurred had the opposing impulse found its expression? Surely no such claim can well be made.

The resolution of a conflict implies, to be sure, the breaking into activity of one of the opposed elements, which will act pleasurable, as all action after repression is pleasant; but, on the other hand, it implies also the probability of an increase of pain from the opposed elements, now positively prevented from developing. In general, to be sure, the pleasure in connection with the winning element will overbalance the repressive pain of the opposed elements, principally because the pleasurable persistent idea through its intensity will take possession of the field; and hence it may be laid down as a rule that the will act *per se* is pleasurable: it is not unnatural, therefore, that in anticipation the outcome of a state of conflict in will should (in most cases) be looked forward to as a pleasure; and *if there were no other consideration* it would be true to say, 1st, that the most effective element will win; and 2nd, that of the two possible will-pleasures which could result from the conflict, the greater will be attained.

On the other hand, it cannot be held that in all cases the act of will leads to the immediate resultant which would give the greatest pleasure under the circumstances, for the reason that other considerations do enter to disturb the algedonic balance.

The first alteration of this balance that attracts attention is due to the effect of habit, which makes the appearance of certain resultants easier than the appearance of others, apart from the inherent efficiency of the contending elements.

In such cases the more powerful impulsive idea (A) may be obstructed by a less powerful one (B), which latter nevertheless wins because it holds the road, so to speak. The immediate outcome then will be a will-pleasure (β) which we must acknowledge to be less than would have been the will-pleasure (α), which would have resulted had the more powerful element (A) won: and, moreover, the immediate pain of opposition connected with (A) which is repressed will be sharper than the pain which would have accrued if the less strong, but habitually occurring, element (B) had been obstructed; notwithstanding that in such a case the fact that habit had led to the formation of nutritive and active associations would not improbably have *finally* resulted in a more persistent pain of obstruction if the habitual line of movement had been overcome.

A second disturbance of the balance is due to the fact that the most natural outcome of the conflict of impulses is at times overborne by an influence from the ego, from the field of inattention; this is of the very essence of many emphatic cases of voluntary action. We act, as Professor James¹ says, in what we distinctly appreciate to be the line of greater resistance. That is, some influence from the field of inattention appears which forces the activity in the direction in which the volitional outcome is least pleasurable, and in which at the same time the maximum of obstructive pain is brought about by the repression of what appears to be the more powerful of the conflicting activities.

Both of these disturbances of the algedonic balance are of such frequent occurrence that it cannot possibly be maintained that the average will act is in the direction of the greatest immediate pleasure.

¹ *Psychology*, ii. p. 548.

§ 3. But as I have said before, the interpretation of the doctrine of egoistic hedonism considered in the discussion in the last section is not generally upheld. Thinkers usually concentrate their attention, not upon the notion of the pleasure of the act of will, but upon the notion of the totality of pleasure which it is thought may result from the act. Let us ask ourselves whether the above-stated rule of egoistic hedonism as thus interpreted, if it be expressed in terms of our doctrine of the relation between pleasure and desire, gives us any valuable guide to conduct.

The rule, as it is usually understood, may be expressed thus : examine carefully the scale of pleasures desired, and strive to attain that pleasure which it seems likely will prove to be the fullest. The rule as it should be expressed, however, if my analysis be correct, will read thus : *Examine carefully the scale of pleasure attached to the ideas which create the conflicting desires, and reach out to that idea which is most pleasurable. Error is due to the fact that we carelessly aim to realise the less pleasant idea.*

It is evident that if we follow this rule the most vivid or the fullest pleasure we can obtain at the time of consideration will mark the direction of our activity. But it is equally clear that the realisation of the pleasantest idea, even as thus construed, will not as a rule produce results that will be satisfactory, for it will not lead to actions which will prevent the subsequent upbraidings of our conscience. For this pleasantest idea will, in most cases, override certain less vivid and less pleasant ideas, which latter, however, are more persistent than the former. For instance, the pleasure attached to the idea of a sensuous gratification will certainly in most cases be more vivid and fuller in any such process of consideration than the pleasure attached to the idea of activities of social significance which are determined by the trend of actions of a complex nature : yet, as we

have seen, it is these latter pervasive and persistent impulses, determining the broader trend of our activities, which institute that inquisitorial court, conscience, which condemns us to regret and remorse, whenever, and for the very reason that, we act in accord with the less persuasive and persistent impulses which are at the moment of temptation more vivid, and at the same time more pleasant.

It is apparent, therefore, that the rule of conduct enunciated by egoistic hedonists, even when stated in terms of a correct psychology, cannot result in action which will satisfy our conscience and enable us to avoid the sting which accompanies the consciousness of folly and sin.

§ 4. But, as a matter of fact, this rule in this form is really seldom discussed, it is usually, and quite unconsciously, changed into quite another form with which by most people it is hopelessly confounded. The rule of action just considered is based, as we have seen, upon an unsatisfactory psychological assumption, the error involved in the assumption, however, being most difficult to lay hold upon because of the perplexities of algedonic analysis. It thus happens that because the validity of the rule first formulated is with difficulty controverted, the rule into which it is transformed is often felt to have more strength than in reality it has.

This modified rule to which I refer, and which is usually, but incorrectly, supposed to be the corner-stone of egoistic hedonism, in accordance with our analysis must be stated thus: *each one of us should act to gain, not that pleasure which seems likely to be the fullest, but that end which as an idea has attached to it for himself the greatest number of associated ideas that are called pleasures.* This is really what is meant by the rule as ordinarily discussed.

Here the term "pleasure" designates a notion, an abstract presentation, not necessarily in itself a pleasure at all, but one which where pleasant has, as pure pleasure, a force exceedingly low in degree in comparison with the force of the presentation itself: and this abstract presentation is quite a different thing from the notion of the "idea of pleasure" or revived pleasure, which we have above discussed and have finally concluded to be meaningless. Nevertheless, as I have just said, the obscurity which renders the denial of the validity of the first rule so difficult leads men to feel that this modified rule has a good deal of strength which in reality does not belong to it; for when one studies the matter with the least bit of care its failure becomes at once apparent.

As we have seen, the rule cannot suffice unless it leads to acts which satisfy our conscience,—to acts which show a correspondence with our relatively permanent impulse series; and it is very evident to any one who has followed our previous argument, that no amount of attention that can be given to the attainment of ideal ends to which our personal pleasure is attached can satisfy the social impulses within us which would so often lead to self-sacrifices; yet these social impulses are the very ones which are emphatic in that relatively permanent impulse series which gives us the moral code of the time of reflection, and which determines whether conscience will signify approval or disapproval.

§ 5. Notwithstanding this weakness the modified rule of egoistic hedonism just discussed has great ethical importance because (principally, I imagine, on account of the fact that it is felt to be unrefuted and nevertheless unsatisfying) it has led ethical thinkers to make attempt to modify it, in order to develop from it some more valid rule

of action. Many able ethical thinkers have, as a result, come to believe that the difficulty with the old rule lay in its assumption that our existence is that of isolated beings in this world, and they have been led to the statement that we gain a satisfactory rule if we include in our thought other beings who surround us. If we express the new rule in what seem to me to be proper psychological terms, it tells each of us *to act to gain that end which, as an idea, has attached to it for himself, and for all the rest of mankind, the greatest number of associated ideas that are called pleasures.* It is usually expressed less technically, and gives us the rule of "universal hedonism," which bids us to act to produce the greatest happiness of the greatest number.

If the reader go back of the rule in its usual form as just stated, to its more careful statement italicised in the sentence just preceding the last, he will perceive that here again the term "pleasure" designates a notion, an abstract presentation which is not necessarily in itself a pleasant presentation at all; and moreover, this presentation is one which, when pleasant, has through its pure pleasure a force exceedingly low in degree in comparison with the force of the presentation itself;—an abstract presentation which is quite a different thing from the supposititious "idea of pleasure," or revived pleasure, which we have above discussed and found to be psychologically meaningless.

§ 6. This new rule, however, has become of great consequence in modern ethical theory, for it forms the basis of what we call Utilitarianism.

John Stuart Mill thus expresses the doctrine in his famous essay on "Utilitarianism": "The creed which accepts, as the foundation of Morals, Utility, or the Greatest-happiness Principle, holds that actions are right in proportion as they tend to promote happiness, wrong as

they tend to produce the reverse of happiness." The rule that is deduced from this is: Act to produce what you conceive to be the greatest happiness of the greatest number.

Assuming that we are able to surmount the great practical difficulty of acquainting ourselves with what constitutes this greatest happiness,¹ let us consider for a moment what we mean by this greatest number.

It is apparent to the modern biological student that the community of highly moral, highly civilised, men with whom we live cannot by any process be separated by any logical line of demarcation from those of our own race who have not this high morality and civilisation. It is equally apparent that our own part of the human race cannot be separated from the semi-barbarous inhabitants of the plains of Persia, of the fastnesses of Hindustan, of the Steppes of Siberia: nor can we draw any line which enables us logically to cut off the lowest barbarian of the interior of Africa from consideration in connection with the proposed rule of action here discussed.

But beyond that, although there is a gap unbridged between the lowest man and the highest animal, evolutionary doctrine forbids us to consider the genus *homo* as a class against which the whole race of animals must be arrayed. Theoretically I am unable to see any reason why we should not include the whole of animal life in any scheme which looks to general happiness.²

This difficulty was not apparent to those who lived before the evidence of our kinship with the animals had become so convincing as it is to-day. Later utilitarian writers who are faced by this difficulty are likely to evade it by

¹ Concerning these difficulties cf. Green's *Prolegomena to Ethics*; also Sidgwick, *op. cit.* book ii. chap. iii.

² Cf. Green, *op. cit.* book iv. chap. iii. p. 373.

assuming that there are assignable limits to the effects of our conduct; and that we have to take into account only "all whose happiness is affected by the conduct," as Professor Sidgwick puts it.¹ But it seems to me that our modern conception of the nature of organic life, as a whole, necessarily implies that our actions affect all other organisms which can in any way either directly or indirectly be influenced by our activity.

But lest I be thought to be going too far, I am willing for the sake of argument to assume that mankind has a special nobility, and I agree to limit to mankind, as a whole, the number whose happiness we must consider under this rule.

If any valid reason can be presented why any of mankind should be excluded from our consideration, I fail to appreciate it. Criminals are men who act deliberately to satisfy cravings which seem to them perfectly rational, but which we think warrant us in making a separate class of them, but this only in order that we may protect ourselves from harm, and our civilisation from disintegration: that their happiness is involved in their actions, and that their characters differ from ours only in certain directions, or only in degree of emphasis of capacity, is self-evident. The weak-minded in like manner can in no way be eliminated from our consideration. Even if we assume with Cumberland that our guide should be the "common good of all rationals," our extension of the application of reason prevents us from thus avoiding the conclusion just reached.

If we bear this in mind we are at once struck by the fact that it is impossible to uphold that the most thorough-going utilitarian moralist does or can desire the greatest happiness of all mankind, or that he could satisfy his conscience if he did so.

¹ *Op. cit.* book iv. sec. 1.

As a matter of fact what he does is to attempt to imagine the sum total of the happiness of that special group of mankind which comes within his necessarily limited experience of the race, and whose desires and motives he is able to picture somewhat vividly, *and to which he finds a response within his own soul.*

The fact that the best of men do thus limit the classes of mankind, to say nothing of animal life, whose happiness they take into account leads us naturally to consider whether this limitation is not a necessary one, and whether this necessity does not involve a failure of the rule we are studying.

I for one think this limitation is necessary and the failure of the rule therefore positive. None of us in practice takes into consideration all sentient beings: "enthusiasm for Humanity" is the highest ideal the most ardent utilitarian ever sets before himself; but this is an ideal rather than a possible working rule. There are exceedingly few if any actions which can be determined by the consideration of their effects upon the whole race of men. The most we can do, if we labour to the uttermost, is to endeavour to broaden our view to include the masses of the civilised, and this is possible in relatively few cases. For the most part our actions can be determined only by reference to the relatively small group of mankind which make up our own civic communities: patriotism forces us to exclude from consideration the desires of all who call themselves our enemies; opposition to adultery excludes from consideration the desires of a still larger group; the family virtues exclude from consideration a still more numerous class of men. In fact I think it might be argued that certain virtues of intense personal interest necessarily compel us, under the rule we are considering, to uphold the doctrine of

egoistic hedonism which we have already seen is entirely untenable.¹

In fact when we study the subject with care it becomes clear that as, under the theory, happiness is held to be equivalent to utility, we must, if we act under it, strive for the happiness of only the group in which, at the moment of consideration, we include ourselves; and this because of our belief that benefit will then accrue to that group as the result of our action, and that it will by our action be in better condition to prove successful in the contest for persistence than it otherwise would have been.

But even suppose we could and did always extend our vision to include the happiness of the whole race, then it becomes evident that our action thus determined could never satisfy conscience. For the order of efficiency of the impulse series which determines moral codes differs, as we have seen, because of inheritance from ancestors whose instincts have differentiated and diverged, differs in individuals and still more in special groups of individuals; and it is impossible to suppose that any action taken to gratify to the uttermost all those who have inherited impulses different from ours can harmonise with the gratification which is possible of attainment by the relatively small group which has inherited traits like our own; impossible to suppose that such actions can in retrospect be found to fit in with, can fail to stand in opposition to, the impulse series which determines the approval or disapproval of conscience within us.

§ 7. This objection may perhaps be brought out more forcibly in another manner.

¹ Professor Sidgwick (*op. cit.* book iv. chap. 3, sec. iii.) tries to break the force of this objection by referring to the obvious utility of such partial reference, but he does not seem to me to have removed the difficulty.

The one great advantage of the utilitarian rule of conduct lies in the fact that it casts aside individualism and expresses itself in terms of racial value, of racial vigour. But this fact itself marks the limits of its service to the moral man. For assuming for the moment that pleasure and benefit are always coincident, then evidently the old formula may be stated in the form which names as the end of action the highest *efficiency* of the largest number.¹ But if the rule is thus stated we at once perceive its weakness as a practical guide. For no intelligent man would be willing to take as his guide in action the efficiency of the *average* man as he knows him—a notion which becomes the more distasteful when we consider that Darwinian doctrine has broken down the boundary between the rational and irrational, and has indefinitely extended our racial brotherhood.

Nor would developmental theory allow that such an end of action would tend to the advance of our race. What developmental theory demands is the encouragement of the more effective groups and the discouragement of the less effective groups. Individuals of the type which is the most effective in any special direction, and which is to win, will indeed gain pleasure from activity in that direction. But action in this same special direction will as clearly be painful for all but the few who are qualified to act efficiently in this special direction; painful because of the strain connected with the attempt to act in a direction in which their capacities are limited or lacking, and because of the restriction of other actions which they are more fully capable of performing. Evidently action towards what we conceive of as the greatest happiness of the greatest number cannot coincide with action towards the emphasis of the most effective life.

¹ Cf. Leslie Stephen, *Science of Ethics*, chap. ix.

But beyond the objection thus stated it is easy to show that the assumption that pleasure and value to life are necessarily conjoined, made above for the sake of argument, is one which cannot be upheld. As I have attempted to show elsewhere, pleasure is indicative of the efficiency of the special nerve tracts, the activity in which is involved in the production of the mental state that is pleasant; that is really the most that can be said of the correspondence between pleasure and efficiency. It is true that, as a result of evolutionary laws, pleasure tends to become coincident with the vigour of the organism as a whole, but this is true only under approximately normal conditions, and is subject to numerous exceptions, to so many in fact that it becomes clear that while pleasure is indicative of vigour in the nerve tract, the action in which is coincident with the appearance of the pleasurable content, it is by no means indicative necessarily of vigour in the individual life. Much less can it be shown that pleasure, which pertains to the action of only a special part of an individual, can indicate value to the race of which that individual is only one element.

Professor Woodbridge, of whose distinction between the use of the word "pleasure" in the psychological and the material senses I have above spoken, calls attention to the fact that as the psychological aspect of pleasure can only be conceived to have to do with individuals, it can have nothing to do with morality, which is determined by the existence of social groups,¹ and therefore he argues that in no possible way can universal hedonism be founded, if psychological truth is not violated. This objection seems to me to be a valid one and quite in line with the preceding argument.

We are thus brought to see that from the evolutionary

¹ *Op. cit.* p. 478.

point of view the existence of, and the strengthening of, certain relatively persistent impulses in each group is of importance in order that these impulses may be put to the test in the struggle for supremacy. It is the strengthening of these impulses, and not the pleasure or the avoidance of pain, for which Nature is watching, for by means of these impulses she is able to produce racial efficiency.

But even suppose for the moment that we can and do act to produce the efficiency of all rational beings, then it seems to me clear that actions directed to such an end must fail to satisfy our consciences. For, reasoning as we did in the last section, we perceive that the order of efficiency of the impulse series which determines our moral codes differs in individuals and still more in special groups of individuals; and that therefore it is impossible to suppose that any action taken to effect the efficiency of the whole race of men who have inherited different capacities in varying degrees, and different capacities than those which we have inherited, can harmonise with the impulse series which will arise in our minds in reflection, determined as that impulse series is by special capacities which are especially emphasised in us; it is impossible to suppose therefore that such actions can in retrospect be found to fit in with, can fail to stand in opposition to, the impulse series which determines the approval or condemnation of conscience.

§ 8. It may be well in passing to speak of one point urged by Professor Sidgwick¹ in favour of the Utilitarian position; viz. the fact that when the ordinary man finds himself in doubt as to the relative importance of conflicting claims he is wont to determine his action "by forecast of the effects on human happiness to be expected from the general establishment of any proposed rule." This of course

¹ *Op. cit.* pp. 433 and 451.

cannot be doubted, but it seems to me it goes to show merely that at certain times conflicting impulses are so evenly balanced that our sympathetic impulses turn the scale; it surely does not prove that our conception of the happiness of humanity at large should always be the basis of moral action.

§ 9. On the whole it seems to me that if the hedonist is to hold his ground at all he must come out boldly as an egoistic hedonist. Then he might contend that our ethical aim should be the subordination of temporary to permanent impulses to the end that our memory of past intentions may show our acts to have accorded with the relatively permanent order of impulse efficiencies experienced in reflection: for if we do not so act, the memory of our acts will show an opposition of past impulse to the impulse most persistent at the time of reflection, and this will give us pain due to this opposition: the avoidance of the pain might thus be claimed to be for us a valid guide.

I do not imagine, however, that any such extreme view would be upheld. But if it were, the objections above considered to egoistic hedonism still hold with no loss of cogency: and furthermore, this argument is evidently unavailable for any one holding to the evolutionary point of view; for under that view the avoidance of the pain incident to revival is not of great moment, it is the existence and strengthening of the relatively persistent impulses which is of moment, as it is the impulse to activity, and not the avoidance of the pain, which leads to the racially effective resultant.

Under the postulates of survival the tendency which is important to ethics is the tendency to work towards far-off ends; and those ends will persist in the thoughts of men which, when attained, are effective to living. It is the

persistence of these ends that is important, not the provision of pleasure to be gained nor of pain to be avoided.

§ 10. We are led so naturally from the position we have thus reached to the statement of a rule of conduct in conformity with our previous studies that I hesitate to stop to consider other rules of conduct than those proposed by the hedonists, especially as it would make too great a break in our line of argument to attempt to touch upon the questions involved without appearing to deal with authoritative thinkers in a careless and unappreciative manner. But it is worth while, I think, to consider one high authority whose doctrines are opposed by the Utilitarians; to ask ourselves whether the rule of conduct enunciated by Kant is able to stand the test of introspection in accord with the psychological insight gained from the study of biological phenomena.

"So act," says Kant, "that the rule on which thou actest would admit of being adopted as a law by all rational beings."

I think it must be apparent to any one who has followed, and agreed with, my argument above, that an objection almost identical with that raised against the "greatest happiness theory" holds also against the rule thus stated. For we have come to see that it is impossible to draw between rational and irrational beings any line which will enable us to cut ourselves away from brotherhood not only with all of mankind, but with all of the animal creation; and if this be so it is impossible for us to conceive of a rule which could be adopted by all rational beings. Moreover, if such a general rule were conceived and followed, the actions involved could surely never appear in retrospect to correspond to our own special relatively permanent impulse series, in other words, could never satisfy conscience. The rule proposed, furthermore, could not be countenanced by

Nature, who looks to us to emphasise and enforce certain impulses which have been gained only by those relatively few rational beings with whom we are classed, in order that our type may contend for supremacy with others in which these same impulses have not developed in the same order of emphasis; and she demands this of us in order that she may test in her vast laboratories the relative efficiency of the several groups to cope with the varying and complex conditions of the environment in which we all live.

§ 11. Passing from this parenthetical suggestion we may now turn to the attempt to formulate a rule of conduct which will appear to be in harmony with the psychological considerations that have been emphasised in what has preceded this.

The whole drift of our argument in preceding sections has made it apparent that the important consideration in the guidance of our lives is attention to, and the strengthening of, the more far-reaching and pervasive and persistent, although often less emphatic, impulses within us; and that this is necessary if we are to become efficient individuals in the racial group to which we belong, and which we hope will persist and develop in the future. Unless our habit of action leads to such results we can never expect our acts as viewed in retrospect to harmonise, even approximately, with the relatively permanent impulse series which presents itself to our mind at the moment of retrospect; or in other words, can never expect to satisfy in any degree the demand of conscience, which is determined by the existence of this relatively permanent hierarchy of impulses.

It is apparent that, if we are to satisfy conscience, in each case we must so act that the remembrance of our act will show it to be harmonious with our ethical ideal—will show it to have been one which was the outcome of a

contest of impulses in which the relative potency of the impulses involved corresponded with that of the series which determines our ethical ideal,—corresponded, in other words, with that series which presents itself to consciousness as that relatively permanent field of impulse revival which is determined by our highest notion of the impulse series in the ideal man. If we so act we shall find our conscience satisfied.

But how shall we most certainly ensure our action under this rule? Evidently, if my previous argument be correct, by the restraint of those instincts which are wont to be stimulated to vigorous and immediate reaction, by the restraint of the variations which are determined by rationalistic emphasis, until such time as those more pervasive instincts that are not wont to be stimulated to vigorous and immediate reaction have time to assert themselves and to gain due prominence in the determination of our action.

That it is the part of greater wisdom to restrain the quicker response of the earlier formed, the so-called “lower,” instincts seems clear. And if we take another point of view, it appears equally clear that similarly it is on the whole most rational to restrain the momentary emphasis of some special element of our conscious life by reason; for the effect determined by this momentary act of reason relates to the field of attention only, the field of inattention being overlooked: but the fields of attention and of inattention together represent all of the results of experience in our own lives and in the lives of our ancestors as well, and the mass of this experience is represented in what resides at the moment of this rationalistic emphasis in the field of inattention. It were surely safer, then, to act in such a way as to permit the whole of our own experience, and also the results of ancestral experience, to influence our acts; and this can only be done by allowing the influences from the

field of inattention to have full play, which in turn can only be accomplished by the temporary restraint of the momentary leadings of reason in attention, until all of the influences from the field of inattention within us can have an opportunity to assert themselves.

So soon as this habit of restraint in this manner becomes instinctive, then, as we have argued above, we find ourselves governed by the religious instinct within us, then we find our trends of action determined not only by the simple conscience which balances particular impulses, but by that wider development of conscience which teaches us to emphasise habitually the most permanent order of impulse efficiencies of which we can conceive; then, in other words, we find ourselves guided by the "sense of duty." As the highest morality must take account of all existing impulses and must weigh all, so it seems to me that no ethical life can be of the highest form which does not include in its consideration the highest of all impulses, the governing impulse, the religious impulse.

We are thus led to see that the rule of action which will best satisfy conscience, which will produce the closest correspondence between our action as viewed in retrospect and our most permanently efficient impulse series, is one which is based upon this religious instinct, and which involves the presence in mind of the sense of duty. This rule we may formulate as follows: *Act to restrain the impulses which demand immediate reaction, in order that the impulse order determined by the existence of impulses of less strength, but of wider significance, may have full weight in the guidance of your life.*

In other words—BE RELIGIOUS.

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